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Contents

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Oglethorpe's Sources for the Savannah Plan

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In the history of city planning, Savannah holds a unique place. Alert visitors quickly discover that its grid of streets is delightfully relieved by twenty-four squares, most of which comprise embowered oases. Without its distinctive squares Savannah would still retain its rich history, but physically it would be only another monotonous and undistinguished checkerboard.

The mere presence of a square or squares did not of itself make Savannah unique. Many American colonial towns, such as New Haven, Charleston, and Williamsburg, received a central square. Philadelphia included not only a central plaza, but in addition a recreational park-square in each of its four quarters. Early nineteenth-century subdividers occasionally promoted sales appeal by introducing residential parks for the enjoyment of adjacent property owners, for example, New York's Gramercy Park. In Savannah, however, it is the unrivalled series of squares that is remarkable.

Because of its wealth of open spaces, the history of Savannah's plan has stirred the curiosity of numerous scholars. All, of course, have recognized that the series records a long period of growth (fig. 1). The original plat along the top of the river bank included only six squares which provided ample accommodation throughout the colonial period when the population at no time exceeded 1,000. In 1766 the whole colony still had less than 18,000. By 1790 the new state counted 82,500 in a vast territory stretching to the Mississippi. In the same year Savannah reached 2,000 and this fact prompted subdivision of new blocks which added Warren and Washington Squares to the east and Franklin Square on the west.[1] During the 1790s both state and city doubled their population. In 1799 blocks forming Columbia, Green, and Liberty Squares were laid out.

The vigorously expanding community now began to concern itself with civic amenities. Bay Street was lined

Fig. 1. Chronological plan, Savannah, 1733–1854 (drawing by Bannister, based on plan by H. A. Chandler, *Georgia Historical Quarterly* 1).

with chinaberry trees to form a handsome promenade and to serve as a prophylactic screen against miasmal vapors rising from nearby swamps and rice fields.[2] This was also

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1. The successive additions in the central area are defined and dated on the map published by Harry A. Chandler, *Map of a Portion of Historical Savannah*, 3rd edition (1917), and contained in the *Georgia Historical Quarterly* 1 (1917).
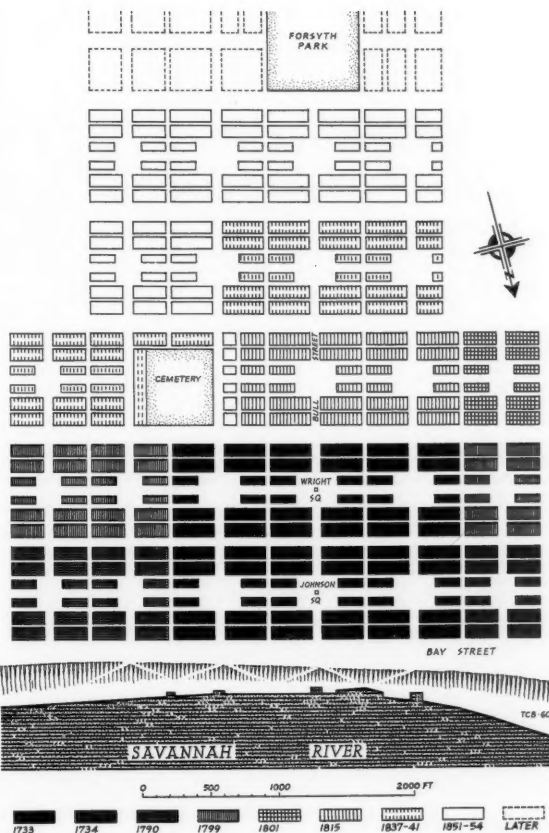
2. J. E. White, 'Topography of Savannah and Its Vicinity, a report to the Georgia Medical Society, May 3, 1806', *Georgia Historical Quarterly* 1 (1917), 237.

Fig. 2. Plan, Savannah, 1757 (from W. G. de Brahm, *History of the Province of Georgia*, 1849).

the period when the squares—except Ellis with its special function as a market place—were dignified by central planted areas protected and defined by barrier chains.[3]

During the first half of the nineteenth century continued growth, habituation to civic spaciousness, and a desire to follow the current romantic taste for landscaped residential parks combined to multiply Savannah's squares. By 1851, when the city counted more than 14,000 inhabitants, the last of the twenty-four squares of its central core area was laid out and the commons, from which all earlier additions had been carved, was completely consumed. In the same year the creation of Forsyth Park, designed by the Bavarian gardener William Bischoff, at the head of Bull Street, marked the change from the older neighborhood squares to the new fashion of large municipal parks.[4] Fine as this new feature was, especially after its southern extension of 1866, this shift of taste deprived later subdivisions of the humane character and scale which add such charm to the city's central core.

3. Walter C. Hartridge (ed.), *The Letters of Robert Mackay to His Wife* (Athens, 1949), pp. 92, 291. Cited in Frederick D. Nichols, *The Early Architecture of Georgia* (Chapel Hill, 1957), p. 13, nn. 27, 28.

4. *Georgia, a guide to its towns and countryside* (Athens: American Guide Series, 1940), p. 252.

The remodeling of Savannah's squares around 1800 from open, unplanted plazas into landscaped neighborhood parks must be emphasized if we are to understand their original meaning. The plan of the city prepared in 1757 by William Gerard de Brahm, Surveyor General for the Southern District of North America during his fortification of the city, shows its full extent as laid out by General Oglethorpe (fig. 2).[5] The basic unit, the ward, an area 675 feet square, was repeated six times, with one range of three facing Bay Street and a second range immediately to the south. In the four corners of each ward were two lines of five town lots, each of which measured sixty by ninety feet. The two lines were separated by a twenty-two-and-one-half-foot lane. This was apparently the earliest colonial example of the alleys which later were added to Philadelphia's plan and from thence were widely adopted throughout the country. Each corner set of ten lots constituted a tithing, so that the whole ward contained forty lots, or four tithings. The total for the city thus came to 240 lots.

At the center of each ward lay its square, measuring 270 by 315 feet to the surrounding building lines and being slightly less than two acres in area. In each direction seventy-five-foot major streets linked the squares and another, Broughton Street, separated the north and south ranges of wards. The minor north-south streets dividing the wards were given widths of only forty feet. Further, the east and west sides of each square had room, on each side of the seventy-five-foot cross street, sufficient for only a 60-by-180-foot double Trustee lot and a narrow thirty-seven-and-one-half-foot access lane to the three house lots which it masked. De Brahm indicates that these twenty-four Trustee lots were intended for various public structures and official residences. It is interesting to note that in his text De Brahm labels all six squares as 'market places', with Ellis Square assigned to butchers' stalls. He also observes that suburban agglomerations had already appeared outside the central area at Yamacraw and near the Trustees' Garden. The segregation of commercial warehouses at the foot of the bluff was logical and noteworthy. Finally, the plan evinced a rather tentative attempt to obtain a degree of monumentality by showing an exchange which dominated both Bay Street and the Bull Street axis. Oglethorpe himself had emphasized this axis by erecting a sundial as the focal point of Johnson Square and, in 1739, by burying his friend, the Indian chief Tomochichi, in the center of Percival (now Wright) Square.[6] The over-all dimensions of the six-ward city were 1,425 by 2,105 feet.

5. W. G. de Brahm, *A History of the Province of Georgia* (Wormsloe, 1849).

6. Chandler, *Map of Historical Savannah*, Item L; Walter G. Cooper, *The Story of Georgia* (New York, 1938), I, 228.

Fig. 3. View, Savannah, by Peter Gordon, 1734 (courtesy New York Public Library).

The familiar view of Savannah, dated 29 March 1734, was drawn by the colonist Peter Gordon (fig. 3). It was engraved in London, was dedicated by Gordon to the Trustees, and was probably intended to illustrate a promotional pamphlet.[7] It shows the two central wards (at the left) almost completely occupied by the first modest wooden cottages which followed the standard design stipulated by Oglethorpe. The western wards (on the right) were already platted, but they contained only sixteen cottages at this early date. The eastern wards had not yet been laid out, and, indeed, only enough ground had thus far been cleared in this direction to allow construction of the *pallisado*. Nevertheless, Francis Moore, who came to Georgia with Oglethorpe late in 1735 and served as the general's aide and keeper of stores, could soon describe the community as having 240 town lots, thus indicating that all six wards were originally intended and promptly provided.[8]

The city proper was only part of the Trustees' plan of colonization. In addition to the town lot assigned to each accepted male emigrant, he was also allotted a five-acre triangular garden plot, beyond the belt of common land but within convenient walking distance, and a 44.9-acre farm farther out on which he agreed to raise mulberry trees to support the colony's silk industry. The Urlsperger map of Savannah County, published in 1735, illustrates the system employed in subdividing the total area of twenty-four square miles required by these grants (fig. 4).[9] Nor was this the end. Moore relates that beyond the boundaries of the city's own land a band of villages was settled. Indeed, soon after the second ship, the *James*, anchored at Savannah on 14 May 1733 Oglethorpe established twelve families, mostly French, in the village of High Gate, five miles south of the city. Nearby, twelve German families settled Hampstead. Thunderbolt, Skidoway, Joseph-Town, and Abercorn soon followed.[10] Interspersed with these, and continuing on beyond, individual plantations of 500 acres were granted to settlers who by their own means had transported themselves and ten servants.[11] Moore comments that the villages were grouped in fours to form a ward which in turn was associated with a town ward in order that if 'war should happen, the vil-

7. I. N. Phelps Stokes and Daniel C. Haskell, *American Historic Prints* (New York, 1938), pp. 14–15; for Gordon's land grant, Cooper, *Story of Georgia*, I, 138.

8. Francis Moore, *A Voyage to Georgia begun in the year 1735* (London, 1744), reprinted in *Collections of the Georgia Historical Society* (Savannah, 1840), I, 30–33.

9. Samuel Urlsperger (ed.), *Der Ausführliche Nachrichten von den Saltsburgischen Emigranten.* 13te Continuation, Erster Theil (Halle-Augspurg, 1747). The McKinnon Map of Savannah lands is reproduced in Nichols, *Early Architecture of Georgia*, p. 19; John W. Reps, 'Town Planning in Colonial Georgia', *Town Planning Review* XXX (1960), 273–285, fig. 3, dates it about 1800.

10. Cooper, *Story of Georgia*, pp. 135–136.

11. Moore, *Voyage to Georgia*.

Fig. 4. Map, Savannah County, 1735 (from Samuel Urlsperger [ed.], *Der Ausführliche Nachrichten von den Saltsburgischen Emigranten*, 1747).

lages without may have places in the town to bring their cattle and families into for refuge, and to that purpose there is a square left in every ward big enough for the outwards to encamp in.' In view of Moore's close association with Oglethorpe, it is reasonable to accept this as a primary function of the initial squares. However, Moore hints a further function when he points out that the wooden 'houses are built at a pretty large distance from one another for fear of fire; the streets are very wide, and there are great squares left at proper distances for markets and other conveniences.' The promotion in contemporary Europe of wide avenues and other open spaces to serve as urban firebreaks is often overlooked.

It is unnecessary here to recount in detail the familiar story of the colony's first arrival at the site on 1 February (o.s.) 1733, and its hard struggle to establish as quickly as possible a secure and self-sustaining settlement. It is rather our purpose to seek the sources of the plan that Oglethorpe adopted for his new city. This question has interested a number of scholars ever since 7 September 1885, when William Harden, the devoted librarian of the Georgia Historical Society, presented to his fellow members a paper entitled 'A Suggestion as to the Origin of the Plan of Savannah'.[12] Harden believed that Oglethorpe

12. The Society published the paper as a pamphlet.

may have derived general inspiration from the volume *The Villas of the Ancients Illustrated*, published in London in 1728 by Oglethorpe's young friend, the architect Robert Castell, who a year later died of smallpox in the Fleet Prison while serving sentence as a debtor. Oglethorpe's interest in helping the struggling youth is attested by the fact that he subscribed to two copies of his book. Oglethorpe's distress over Castell's tragic, useless death has often been cited as one of the prime motivations which led him to champion prison reform in Parliament and to participate so diligently in creating the Georgia colony as a rehabilitation center for unfortunate debtors and religious refugees.

In *Villas of the Ancients* Castell presented pertinent descriptions of Roman country houses and farmsteads drawn from Cato, Varro, and Pliny, and endeavored to reconstruct plans of typical examples. After studying the book, Harden writes:

It seems to me that anyone can readily understand that the information it contains is of a kind which would be useful to a person contemplating the undertaking of a work such as Oglethorpe shortly afterwards became engaged in. Besides the descriptions of the villas, much is said in it about the proper location of settlements looking to the health, comfort, and convenience of the settlers, and it contains a number of plates which, to an unprofessional eye at least, present some points of resemblance to certain features in the plan of our city. . . . This paper was prepared only to suggest the possibility of the use by Oglethorpe of Castell's work in the manner already indicated, and not to point out the particular features wherein the plan of Savannah as originally laid out resembles the descriptions in the book.

On the strength of Harden's paper, the *Georgia Guide* still offers this attribution, but objective appraisal now seems to indicate clearly that his thesis is wholly untenable.

More recently, proposals have been broached that Oglethorpe derived the plan of Savannah from other men who were already experienced in the design and laying out of cities. Such an hypothesis naturally brought to mind Colonel William Bull, member of the Council and Surveyor General of South Carolina, who not only was assigned to aid Oglethorpe in selecting the specific site of the new town, but also remained with him during the first month to stake out the plan and give valuable advice and assistance on many other matters.[13] Bull had replatted his native Charleston in 1722 when the growing city burst through its first ramparts to gain additional building sites. However, in carrying out this assignment, Bull had not been called upon to design a new layout, but only to stake out on the ground the western half of the Grand Motel, the plan drawn in the 1670s in preparation for the transfer of the original settlement in 1680 to the more suitable

13. Cooper, *Story of Georgia*, pp. 126–127, including Oglethorpe's letter of 10 February 1733 to the Trustees.
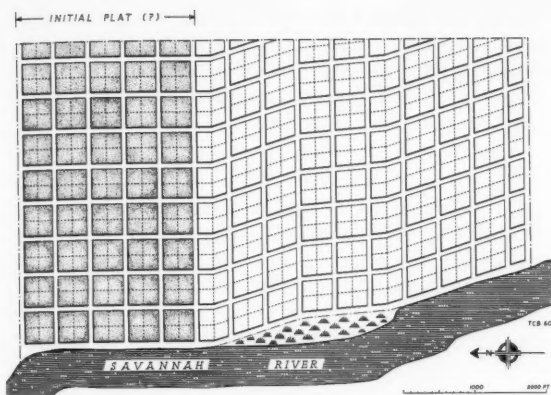
Fig. 5. Plan, Purrysburgh, South Carolina, 1734 (drawing by Bannister, based on plan by H. A. M. Smith, *S. C. Historical and Genealogical Mag.* x).

present site on Oyster Point.[14] At the intersection of Broad and Meeting Streets the Grand Model provided a square measuring approximately 307 by 321 feet. The two axial streets had widths of about seventy feet. In the process of adjusting the model to actual conditions on the ground, Bull made the new square approximately 290 by 330 feet.[15] Thus, the sizes of the Charleston and Savannah Squares were quite similar, as was also the width of the axial streets. Nevertheless, this is evidence much too slight to warrant giving Bull a determining role at Savannah. By the 1670s the incorporation of a single square within a town plat was certainly no longer an innovation. In contrast, the crucial and unique fact at Savannah was its whole system of repeated squares.

If Bull had actually contributed this system of squares to Savannah, it would be logical to expect to find some similar use—either for utilitarian or aesthetic reasons—in other plans with which he was currently associated. In February 1733, just after Oglethorpe's arrival, the South Carolina Council, of which Bull was a member, ordered the laying out of Purrysburgh for the settlement of Swiss organized and led by Jean Pierre Purry.[16] In 1713 Purry, a native of Neuchâtel, Switzerland, had become a planter in the Dutch East Indies. From 1717 on he endeavored to promote colonies in South Australia and South Africa on the theory that latitudes of thirty-three degrees assured

the most ideal climate for new settlements. In 1724, after failing to interest Dutch and French authorities, he turned to the Carolina Proprietors, offered to recruit a military colony from among the distressed Protestants of the Continent, and proposed that the colony be located in the southern part of Carolina and be named Georgia. The first attempt collapsed, but, when South Carolina became a royal province in 1729, the Council authorized Governor Robert Johnson to establish eleven new townships, including two on the Savannah River. Late in 1730 Purry came to South Carolina and selected as his site the Great Yamasee Bluff, on the northern bank of the Savannah, about twenty miles upstream from Oglethorpe's future settlement.[17] The Council agreed that 20,000 acres would be granted to provide a town lot and fifty-acre farm for each settler, a common of 260 acres, and a glebe of 100. Around this core a band six miles wide was to be reserved. A map drawn by Hugh Bryan in 1735 depicts this vast grant.[18] The combination closely presages the system of land allocation followed at Savannah. And the fact that on 22 July 1732 Purry and the elders of the group he was assembling in London attended a meeting of the Georgia Trustees only a month after the latter's charter became operative further proves the possibility of direct influence.

Late in December 1732 Purry was once more in Charleston with 152 immigrants. On 21 February 1733 the Council ordered Purrysburgh surveyed. Since Colonel Bull, the Surveyor General, was absent at the time assisting Oglethorpe at Savannah, the order was directed to Mr. St. John, but the fact that on 5 September the Council paid Bull for the job seems to indicate that he himself performed the work. A later map prepared to show subsequent additions reveals that the town was given a most uncompromising and unimaginative grid (fig. 5).[19] While the original section is unmarked, it is probably that portion along the north boundary where forty square blocks were oriented exactly to the cardinal points of the compass. Five blocks faced the river, and eight tiers ranged eastward. Each block was 417.4 feet square in order to provide four lots, each of one acre. The intervening streets were all one chain (66 feet) wide. Nothing interrupted this monotonous grid; it was obviously conceived in terms which allowed the surveyor to run his lines with a minimum of physical and mental effort. In spite of the over-all similarity of the systems of land allotment adopted by Purry and Oglethorpe, the contrast between the two towns could hardly have been greater.

Bull left other evidence of his ideas of town planning. On 8 September 1732 he purchased half of the Lowndes

14. Henry A. M. Smith, 'Charleston, the original plan and the earliest settlers', *South Carolina Historical and Genealogical Magazine* IX (1908), 12–27.

15. Scaled from Figure 1 in: Frederick R. Stevenson and Carl Feiss, 'Charleston and Savannah', *Journal of the Society of Architectural Historians* x (December 1951), 3–9. The similarity of the square to that of Williamsburg is obvious.

16. Henry A. M. Smith, 'Purrysburgh', *South Carolina Historical and Genealogical Magazine* x (1909), 187–201.

17. Verner W. Crane, 'Purry', *D.A.B.*

18. A map by Smith combining Bryan's plat with details from Robert Mills' *Atlas* of 1825 accompanies Smith, 'Purrysburgh', facing p. 187.

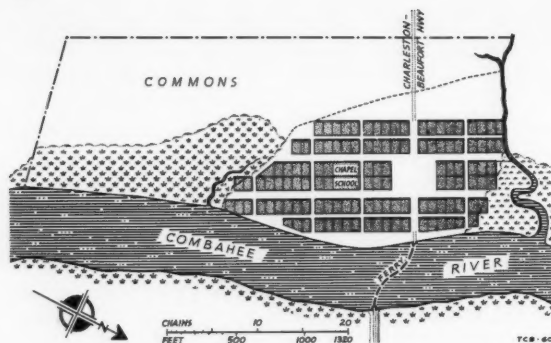19. See map in Smith, 'Purrysburgh', facing p. 187.

Fig. 6. Plan, Radnor, South Carolina, 1734 (drawing by Bannister, based on plan by H. A. M. Smith, *S. C. Historical and Genealogical Mag.* XI).

barony, in what is now Beaufort County, and established on it his own home, Sheldon Plantation. In 1734, on a 100-acre tract on the west bank of the Combahee at the ferry crossing of the Charleston-Beaufort highway, he laid out the small town of Radnor which he intended as a market center and port for produce from his own and neighboring plantations (fig. 6).[20] Seventy acres, including a considerable area of marsh and swamp, were dedicated as a commons. The remaining irregular area of thirty acres provided 120 lots, most of which measured one by one and one-half chains, or sixty-six by ninety-nine feet. On the east-west axis formed by the highway Bull opened a square five chains (330 feet) on each side, which he designated as a market place. The approximate correspondence in size with Savannah's squares is noteworthy. Further, the blocks at the four corners were five lots long and two deep, as at Savannah, and the lot ranges were similarly separated by lanes, here one-half chain wide (33 feet). On the other hand, in contrast to Oglethorpe's islets of double Trustee lots, Bull chose to arrange his central tier of blocks with two lines of lots back to back. This permitted him to substitute 66-foot north-south streets aligned with the corners of the square, in place of Oglethorpe's 37.5-foot lanes. While the restricted site allowed the use of only one of Savannah's 'ward units', the combination of similar blocks, lanes, street widths, and square, laid out some months after Savannah, seems to indicate clearly that Bull took ideas from, rather than contributed them to, Oglethorpe's plan. The fact that Radnor's dimensions were based entirely upon the surveyor's chain, a unit long habitual with Bull, and the fact that the Savannah plan was thought out in foot-quantities incompatible with the chain unit, adds further evidence that at Savannah Bull worked from a plan furnished by others.

20. Henry A. M. Smith, 'Radnor, Edmundsbury, and Jacksonborough', *South Carolina Historical and Genealogical Magazine* XI (1910), 39–41.

From this analysis of Purrysburgh and Radnor, it seems inescapable that we must decline the tentative suggestion, made by the Honorable Thomas Gamble, Mayor of Savannah, in his address in Johnson Square on 12 February 1933, celebrating the city's 200th anniversary, that Bull was the determiner of Oglethorpe's plan.[21] Likewise, we must reject the conclusion expressed by Clark Howell, that, 'In marking out the squares, lots, streets, park sites, etc.—in other words, in plotting Savannah—Colonel William Bull of South Carolina, a man of experience in that line of work, virtually took charge.'[22]

In reaching this denial of Bull's authorship, there is nothing that diminishes the ample evidence of his timely, generous, and valuable assistance to Oglethorpe and the infant colony. Oglethorpe himself freely and correctly acknowledged his gratitude to Bull in his letters to the Trustees, and he, as well as all later citizens of the city, have recognized the debt which is still commemorated by the attachment of Bull's name to the axial thoroughfare of the city.

The only South Carolinian town plat using more than one square and predating Savannah seems to be that of Childsbury laid out in 1707 by James Child on the Western Branch of the Cooper River southeast of Monck's Corner and twenty-five miles north of Charleston.[23] The plat is noteworthy for a small central market square about 190 feet on each side, and for two large squares each approximately 380 by 455 feet in the centers of the four corner blocks of the upper, northern end of the town. One lot of five acres was reserved for a college, one of 2.75 for the church, and one just under half an acre for a Latin school. While the function of the large upper squares is not recorded, they may well reflect the residential squares of London which were just becoming fashionable in 1684 when Childs, his wife, and their eight children had been forced to flee Britain. In any case the plan does not seem to have inspired emulators and there seems no reason to believe that Oglethorpe had any knowledge of it or that it could explain any of the details of the Savannah plan.

Recently, Frederick Nichols, in his handsome and scholarly volume on Georgian architecture, has investigated the suggestion made by his colleague at the University of Virginia, David McCord Wright, a native son of Savannah, and by the late dean of American architectural historians, Fiske Kimball, that Oglethorpe, when he first arrived at Charleston on 13 January 1733, may have recruited the assistance of the Swiss Huguenot military engineer, Gabriel Bernard.[24] Bernard's nephew and ward,

21. Thomas Gamble, 'Colonel William Bull, his part in the founding of Savannah', *Georgia Historical Quarterly* XVII (1933), 116.

22. Clark Howell, *History of Georgia* (Chicago-Atlanta, 1926), I, 75.

23. Henry A. M. Smith, 'Childsbury', *South Carolina Historical and Genealogical Magazine* XV (1914), 107–110.

24. Nichols, *Early Architecture of Georgia*, pp. 11–12.

Jean Jacques Rousseau, relates in his *Confessions* that, 'My uncle Bernard, who was an engineer, went to serve in the empire and Hungary, under Prince Eugene, and distinguished himself both at the siege and battle of Belgrade.'[25] Further on he notes, 'I remained under the tuition of my uncle Bernard, who was at that time employed in the fortifications of Geneva.'[26] Finally Rousseau recorded that, 'My uncle Bernard died at Carolina where he had been employed some years in the building of Charles Town, for which he had formed the plan.'[27] Since the Grand Model of Charleston had been drawn in the 1670s, and since Bull's replat of 1722 remained in force until a new survey was completed in 1746 by George Hunter, then Surveyor General,[28] Rousseau erred in attributing Charleston's city plan to his kinsman. Actually, the first mention of Bernard's presence in Charleston is his petition to the Council early in 1736 for employment on the city's fortifications.[29] He submitted credentials testifying to his European·experience, but it seems to have been rather the recommendation by a Colonel Schutz which led the Council to appoint Bernard to 'direct and inspect the raising and repairing such fortifications as the commissioners shall think fit.' On 12 and 19 June Bernard advertised that the plans to 'rebuild the Battery before Johnson's Fort', most probably the sea battery, were ready for inspection by builders and suppliers.[30] He subsequently worked for a time at Port Royal, but died in July 1737 and was buried at Charleston.[31]

Any influence Bernard could have exerted on Savannah's plan necessarily depended upon an opportunity for contact with Oglethorpe on or before early February 1733, a date three years before he petitioned for employment at Charleston. Rousseau seems to indicate that his uncle was still in Geneva late in 1728.[32] Unfortunately, the location of Bernard between 1728 and 1736 is not known. He does not appear among the listed arrivals or grantees at Savannah.[33] Nichols suggests, without documentation, that he worked for the Swiss settlements in South Carolina. Only Purrysburgh would be early enough, but again his name is not mentioned.[34]

Nevertheless, a link with Purrysburgh might be argued from four tenuous possibilities. First, Purry had recruited colonists among Swiss Protestants in 1725–1726—although transportation plans collapsed—and again in 1731–1732. To British authorities, if not in his promotional pamphlets, Purry emphasized the military value of his proposed settlement. It would seem plausible, therefore, that Purry might have enlisted the services of an experienced Swiss military engineer who, without expecting to remain permanently in Carolina, could have accepted temporary service during a peaceful lull at home.[35] Second, when Purry came to Charleston late in 1730 to select a specific site, he was accompanied by several Swiss, among whom Bernard could have been included to advise on matters of defense.[36] Third, 200 acres were granted at Purrysburgh on 16 September 1738 to an Elias Bernard, but his relationship to Gabriel, if any, remains unknown.[37]

Fourth, the endorser of Gabriel's petition in 1736 was no doubt Colonel John Schutz, whom Robert Johnson, Governor of South Carolina, named in his will, dated 21 December 1734, as a kinsman and as the executor and administrator of his estate in England.[38] Schutz was also mentioned in the will, dated 1762, of Hector Beringer de Beaufain of Charleston, who bequeathed 'to his friend' the sum of £500. Beaufain had received grants of Purrysburgh land in 1736–1737 totaling 1,950 acres but chose to reside in Charleston, where he was later appointed collector of customs.[39] It is also known that John Schutz was appointed in 1736 Lord Warden of the Stannaries in Cornwall for life.[40] Beaufain's will also left £500 to his friend George

25. J. J. Rousseau, *Confessions*, W. C. Mallory translation (New York, 1928), I, 6. The Turkish campaign took place in 1716–1717.

26. Rousseau, *Confessions*, I, 15–16. This locates Gabriel Bernard in Geneva in 1724–1725.

27. Rousseau, *Confessions*, v, 324.

28. Smith, 'Charleston', p. 15.

29. Beatrice J. Ravenel, *Architects of Charleston* (Charleston, 1945), p. 17.

30. *South Carolina Gazette*, 12–19 June 1735, cited by Ravenel, *Architects*, p. 269.

31. Ravenel, *Architects*, p. 18. Nichols, *Early Architecture of Georgia*, p. 12, errs in setting the death in 1747. Miss Ravenel cites Bernard's estate inventory as recorded in *Charleston Inventories*, vol. 1736–1739, p. 132.

32. Rousseau, *Confessions*, v, 325, relates that he found in his uncle's library a copy of Micheli Ducret's 'judicious critique on the extensive, but ridiculous plan of fortification, which had been adopted at Geneva, though censured by every person of judgment in the art who was acquainted with the secret motives of the Council in the execution of this magnificent empire.' In December 1728 the Council condemned Ducret as highly disrespectful to it and injurious to its Committee of Fortifications because he had had his report printed even for limited circulation among members of the Council.

Bernard's acquisition of such a classified document suggests his presence in the city at the time of publication, and may, indeed, indicate some association with Ducret which made it advisable to leave the city and his work on its fortifications.

33. Cooper, *Story of Georgia*, p. 139.

34. Smith, 'Purrysburgh', pp. 208–218.

35. Bernard left his family, papers, and library at Geneva (see note 32) and no books were listed in the inventory of his effects at Charleston in 1737. Miss Helen G. McCormack kindly verified the inventory.

36. Smith, 'Purrysburgh', p. 190.

37. Smith, 'Purrysburgh', p. 215. Rousseau speaks of only one cousin as if he were Gabriel's only son, and notes that he died in Prussian service about the same time as his father. See *Confessions*, v, 324. The name is common in French-speaking regions.

38. *South Carolina Historical and Genealogical Magazine* v, 106–107.

39. *South Carolina Historical and Genealogical Magazine* x, 205–206, 212. I owe this reference to Miss McCormack.

40. *London Magazine and Monthly Chronologer* (1736), p. 522. I owe this reference to Beatrice St. Julien Ravenel.

Schutz, son of Augustus, and named him executor 'for my concerns in England.'[41] It seems likely that this was the same George Schutz who in 1727, as a clerk to Isaac Delpech, notary public in Threadneedle Street, London, witnessed the will of John de Laune of Charleston, then living in Stepney.[42] From these facts it seems that the Schutz family resided in England and were Huguenots with close connections with the Swiss colonists in South Carolina.

In any case, a link between Colonel John Schutz and Gabriel Bernard rests on pure conjecture. It seems implied that Bernard would have had to meet Schutz in England while en route to Charleston, but there is nothing to verify the occurrence or date of such an encounter. To fix a plausible time it would have to be assumed that Bernard was among those elders of the colony who accompanied Purry to the meeting of the Trustees on 22 July 1732, just a month after the final approval of the Georgia charter.[43] Since Oglethorpe had served as aide-de-camp to Prince Eugene in his Turkish campaign of 1717, during which Bernard was an engineer, such a reunion in London would be very romantic and suggestive, but the whole hypothesis rests on too many shadowy suppositions to be convincing.

It has already been noted that Purry's general system of land allotment described in 1729 was very similar to that followed by Oglethorpe in 1733, but that with regard to the layout of the towns themselves the contrast could hardly have been greater. Purrysburgh did not exhibit a single feature either of military import or of civic amenity. If Bernard had anything at all to do with Purrysburgh, whatever it was would constitute the strongest possible evidence that he had nothing to do with Savannah. Further, in view of Oglethorpe's meticulous acknowledgment of many individuals for assistance rendered during the founding of Savannah, the complete absence of any mention of Bernard—while a negative argument—still seems in this instance to be of considerable importance. Finally, if Bernard had indeed played any significant role at Savannah, it seems extraordinary that three years later he supported his petition to the Charleston authorities not by recommendations from Oglethorpe or from Bull, who was still a most important member of the South Carolina Council, but from Schutz in England, whose influence stemmed from kinship with Governor Johnson who had died in the previous year. Thus until new and conclusive evidence can be adduced in Bernard's favor, it appears necessary to dismiss him as the designer of the Savannah plan.

These three attempts to attribute the Savannah plan to authors other than Oglethorpe seem to be inspired by the belief that only those experienced in surveying, or in some constructive art such as military engineering, could find a uniquely satisfactory solution for the requirements of a new community. Yet this was precisely the result that Oglethorpe achieved. Since this accomplishment is closely paralleled in other phases of his administration of the colony and is compatible with the initiative and directness which he displayed throughout his distinguished career, it seems reasonable to assume that he acted as his own planner. Although Oglethorpe did not think it important to assert his authorship beyond stating in his first letter to the Trustees that 'I have laid out the town', its credibility can be clearly established by studying the sources of the ideas he adopted.

It is inevitable that Philadelphia should be cited in this connection. Laid out in 1682 by Thomas Holme, William Penn's surveyor general, its regular gridiron subdivided a flat plain, about one by two miles in extent, lying between the Delaware and Schuylkill Rivers. At the intersection of the two axial streets, Centre Square, a ten-acre plot 660 feet on each side, was reserved as an impressive setting for public buildings. In addition, each of the four quarters of the grid received a square of eight acres. Because Penn's city offered the only existing American colonial community with an orderly series of squares and because its plan had had wide publicity in London ever since its inception, there can be little doubt that Oglethorpe was well aware of its characteristic features.[44] The fact that the city grew up first at the eastern end along the Delaware and that even during the Revolution Independence Hall lay at the western fringe of its built-up area presents no difficulties since engravings of the full plan were easily available. Nevertheless, any comparison with Savannah is superficial, for only Centre Square had any similarity to Oglethorpe's plazas. In contrast, Philadelphia's four other squares were awkwardly inserted into the grid and Penn clearly stated that they were intended to duplicate the recreational purposes of Moor Fields, the large public play area just north of London's wall.[45] Philadelphia, therefore, cannot have held any significance for Savannah.

The central squares of Philadelphia, Charleston, Beaufort, and many other colonial towns reflected an urban motif that had had a growing fascination for European architects and planners since the late fifteenth century. London's first monumental square, Covent Garden, was

41. *South Carolina Historical and Genealogical Magazine* XI, 132.
42. *South Carolina Historical and Genealogical Magazine* XI, 130. Although John de Laune was not recorded as a grantee at Purrysburgh, a Sam Delane held land bounding on Purry's grant. See Smith, 'Purrysburgh', p. 218.
43. Smith, 'Purrysburgh', p. 192.

44. It is of interest to note that both Penn and Theophilus Oglethorpe, father of James, were fervent Jacobites in and after the Bloodless Revolution of 1688. See A. A. Ettinger, *James Oglethorpe, imperial idealist* (Oxford, 1936), pp. 36–37, 41–42.
45. *A letter from William Penn . . . to the Committee of the Free Society of Traders* (London, 1683).

begun in 1630 by Inigo Jones. The construction of rows of fine houses around Lincoln's Inn Fields by the mid-seventeenth century transformed an unarticulated open space into an elegant and orderly residential square.[46] In 1666 the Great Fire, which consumed 436 acres of the city, including 13,000 houses, 86 churches, and all its public buildings, seemed to some of its more thoughtful citizens to furnish a providential opportunity to remodel its layout into a more convenient and impressive form. Numerous proposals were submitted to King Charles. John Evelyn and Christopher Wren, who had already toyed with the idea of revamping the congested mediaeval city, conceived of baroque combinations of gridirons and radial streets focused at strategic points on plazas of various geometrical shapes. Other proposals were less imaginative. Robert Hooke, curator of experiments for the Royal Society and, like Wren, intensely interested in architecture, offered a rigid gridiron. While Hooke's drawing has been lost, it is believed that a plan included in Doornick's engraving of the conflagration may represent Hooke's scheme (fig. 7). It is of particular interest with relation to Savannah because it incorporated a broad open quay along the river and four market squares. Furthermore, the distribution of these squares located a series of three parallel to the river and one to the north on the axis of the central unit.[47]

Pertinent but relatively unknown is another plan drawn by Richard Newcourt, the topographical draftsman who had published in 1658 the most important pre-fire map of the city (fig. 8).[48] Ignoring the undamaged city wall and all the traditional sites of former landmarks, Newcourt proposed a rigid rectilinear grid of broad streets which produced a series of forty-eight blocks with eight from east to west along the Thames and six deep from north to south. The four central blocks were omitted in order to form a gigantic open square, and he seems to have intended to assign one open block to St. Paul's Cathedral and another to the Bank of London. The most important detail, however, is his design of the forty-two remaining blocks as uniform residential areas conceived as parish units. Each consisted of a frame of building lots around a central square in which would stand a parish church surrounded by its churchyard for burials. In addition to the major streets separating the units, a secondary grid linked the squares in both cardinal directions and reduced the building frame of each unit to four L-shaped corner elements. The correspondence in form and administrative

46. S. E. Rasmussen, *London, the unique city* (New York, 1937), pp. 166–177.

47. Rasmussen, *London*, p. 111.

48. Norman G. Brett-James, *The Growth of Stuart London* (London, 1935), pp. 299, 310. Newcourt's drawing, formerly in the collection of Lord Bury, first became known when offered for sale in 1928.

Fig. 7. Proposed plan for the rebuilding of London, by Robert Hooke (?), 1666 (drawing by Bannister, based on Doornick engraving).

Fig. 8. Proposed plan for the rebuilding of London, by Richard Newcourt, 1666 (drawing by Bannister, based on description and partial plan in N. G. Brett-James, *The Growth of Stuart London*, 1935).

functioning with Savannah's ward units is remarkable. Nevertheless, although Oglethorpe was doubtless familiar with the plans proposed by Wren, Evelyn, and Hooke, and although it would be extraordinary if he had arrived independently at a solution so similar to Newcourt's, and although it is conceivable that he or one of the Trustees may have known of Newcourt's plan, any connection with it remains hypothetical because not a single contemporary reference to Newcourt's study has come to light.

While the difficulties of replatting London proved insurmountable and none of the proposed plans was adopted, they doubtless played a part in stimulating the increasing vogue for residential squares so apparent in the new subdivisions laid out west of the city at the end of the seventeenth and the beginning of the eighteenth century. Grosvenor Square, platted in 1695 and built up over the

next thirty years, was a typical example. Since Oglethorpe entered Parliament in 1722 and thereafter frequently resided in London, he must surely have been impressed by these new civic developments. It should also be remembered that he had lived in Paris in 1716 and had traveled in Italy in 1717–1719, where he could hardly have escaped those monumental plazas which contributed such dignity to urban landscapes.[49] In the light of this background Oglethorpe's use of squares can evoke no surprise. What was unusual—and indeed unique—at Savannah was his adoption of a co-ordinated system of repeated squares.

Nevertheless, neither Hooke's market places nor Newcourt's parish units, if indeed Oglethorpe had them in mind, can explain his over-all conception of Savannah. The Georgia settlement was not just an arbitrary expression of a contemporary fashion. The key to its integration of form and function suggests a more direct and positive source, and this must be sought in Oglethorpe's interest and experience in military affairs. His fortification of the southern frontier of Georgia and the expeditions he led against St. Augustine have been amply recounted, but none of his biographers seems to have realized the importance of his youthful military preparation. It is true that before 1733 his entire service in the field consisted of a mere six months in 1717 in the Austrian campaign against the Turks at Belgrade. He distinguished himself in action during the siege and bloody capture of that city and doubtless this successful trial by fire gave him much of that quiet self-confidence which characterized his mature years. However, his most valuable training arose from his position as aide-de-camp to the commander, Prince Eugene of Savoy, one of contemporary Europe's most effective generals. From such a teacher young Oglethorpe could learn quickly and thoroughly the most professional current standards in the conduct of war.

Moreover, the youth was not unprepared to profit by this opportunity. His father, Theophilus, had served the last two Stuarts for twenty years as an officer, rising to the rank of brigadier. Although he shared his sovereign's eclipse in 1688, he continued until 1696 as the leading protagonist for James' restoration by force of arms. Though James Oglethorpe was only five when his father died in 1702, no doubt his fervently Jacobite mother saw to it that the boy acquired full knowledge of his father's career. Further involvement in military interests was also created by the death of his eldest brother Lewis from wounds received in 1704 at Donauworth, Bavaria, while aide-de-camp to the Duke of Marlborough, and by the marriage of his sister Eleanor in 1707 to the distinguished French commander, Maréchal Eugène-Marie de Béthisy, Marquis de Mézières. In 1709, with the assistance of Marlborough, Lady Oglethorpe had secured for her thirteen-year-old son a commission as ensign in Queen Anne's First Regi-

ment of Foot Guards, a rank which was raised to lieutenant four years later. Although these commissions probably did not require any active service, they must have reinforced military interests. Finally, in 1716, after a sojourn at Oxford, Oglethorpe spent some months in Paris, where in addition to studies at the Royal Academy he had entrée to court circles in which martial affairs were frequent topics of discussion.[50]

The significance of Oglethorpe's military interests for his plan of Savannah has already been broached by earlier investigators. Nichols, for example, suggests that the principles of the design of fortress towns, as developed by Italian, French, and German architects and military engineers in the sixteenth and seventeenth centuries, may have influenced Oglethorpe's thinking.[51] Not only is it probable that Oglethorpe knew some of the many volumes of fortification design which illustrated such towns, but also he could easily have visited, en route from Vienna to Venice in October 1717, the most admired of the few completely realized examples. This was Palma Nuova, built by Vincenzo Scamozzi in 1593 fifty-five miles northeast of Venice to guard the republic's vulnerable Austrian frontier.[52] The ramparts delineated a nine-sided bastioned polygon, within which a network of eighteen radial and three concentric streets, six minor squares, and a hexagonal central plaza ingeniously exhibited that geometrical order and symmetry which were so extravagantly admired alike by architects, engineers, generals, and monarchs. It is interesting to note that Scamozzi must soon have discovered that the angular plots resulting from such a radial pattern made the economical construction of buildings exceedingly difficult. In 1615 when he published his great volume, *Dell'idea dell'architettura universale*, he included a twelve-sided revision of Palma Nuova in which the street system was made rectilinear (fig. 9).[53] Into this grid he introduced a rectangular central plaza and four secondary squares. Since he assumed that this theoretical fortress was pierced by a stream which set off one section with a single square, the large remaining section with its four squares assumed a configuration that could readily have inspired Robert Hooke's proposal for the rebuilding of London. The wide distribution of Scamozzi's book makes this link very plausible.[54]

49. Ettinger, *Oglethorpe*, pp. 67, 73.

50. Ettinger, *Oglethorpe*, pp. 58–68.

51. Nichols, *Early Architecture of Georgia*, p. 10.

52. Pierre Lavedan, *Histoire de l'urbanisme* (Paris, 1941), II, 90–91. Horst de la Croix, in 'Military Architecture and the Radial City Plan in sixteenth-century Italy', *Art Bulletin* XLII (1960), 290, n. 119, attributes the design of Palma Nuova to either Giulio Savorgnana or Bonaiuto Lorini, both military architects in the employ of Venice, but also states that Scamozzi may have had a part in its subsequent modifications.

53. Lavedan, *Histoire de l'urbanisme*, II, 25–26.

54. Unfortunately neither the German translation of 1678 nor the French of 1713 included the chapter on city planning. See Paul Zucker, *Town and Square* (New York, 1959), p. 107.

Despite their general interest for geometrical order and the inclusion of squares, Palma Nuova and Charleville do not particularly illuminate the problem of Savannah's plan. This lack of direct relationship likewise holds for the numerous model towns put forward in the fortification treatises of the seventeenth century. Thus despite recognition of the importance of Oglethorpe's military background, previous investigators, limiting their study to the well-publicized permanent fortress towns, have not been able to establish a convincing and definitive source for Savannah's plan.

Nevertheless, there was another phase of military operations which, though perfectly understood by Oglethorpe, has somehow been overlooked by historians. This was known as the art of castramentation, the theory and practice of laying out temporary encampments for the accommodation of troops in the field. Throughout military history this problem has preoccupied all thoughtful commanders. For Greek and Roman armies it was invariable practice, even for overnight halts, to set up and fortify their standard form of camp. The result was not only that the troops were kept under constant control and discipline, ready for emergencies and thus guarded against surprise, but also that it was possible for each individual soldier, as soon as base lines were paced off, to perform his own customary duties with a minimum of confusion.[57] Polybius, the Greek historian of the second century B.C., who had served as a cavalry commander in an Achaean expedition against Macedonia and who accompanied Scipio Aemilianus during the Third Punic War, records in great detail the layout of the Roman camps he saw. One accommodated 17,000 soldiers, was about 2,150 feet square, and was subdivided by a grid of major and minor streets into plots of various sizes suited to the needs of the assigned troops.[58] At the focal point stood the commander's tent, the *praetorium*, flanked by squares for the *forum* (or market place) and for the *quaestorium* for administrative business.

Mediaeval armies differed greatly from those of antiquity in composition, tactics, and discipline. Although mediaeval camps were smaller, more dispersed, and less rigidly arrayed, they probably preserved at least a modicum of traditional Roman order. Some mediaeval warrior kings knew and studied manuscripts of ancient military treatises. The work *Epitoma rei militaris*, compiled in the fourth century by Vegetius, was particularly valued for its rules of siegecraft.

When, from the late fifteenth century on, Renaissance scholars once more rediscovered antiquity, they began to translate and publish the works not only of philosophers, historians, and dramatists, but of military authors as well.
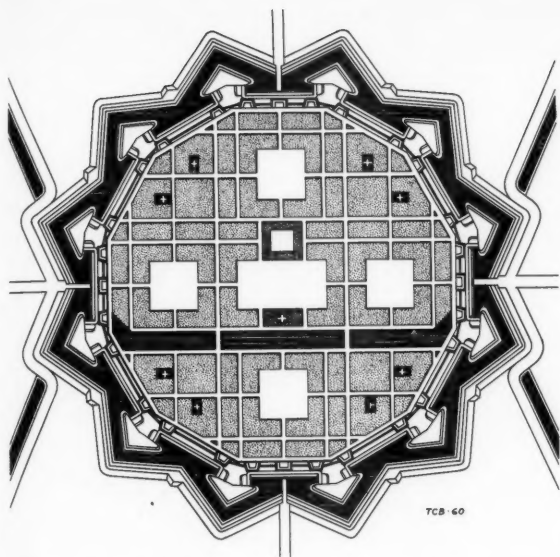

Fig. 9. Plan for ideal fortress town, by Vincenzo Scamozzi, 1615 (drawing by Bannister, based on Scamozzi, *Dell'idea dell'architettura universale*, 1615).

One of the few predesigned towns built in Europe in the seventeenth century was the work of the French noble, Charles Gonzaga, Duke of Nevers and Rethel and governor of Champagne under Henry IV. Upon acquiring a tiny estate lying within a meander of the Meuse River opposite Mézières, forty-five miles northeast of Reims, he founded Charleville in 1608.[55] To attract settlers he offered free lots to all comers, including debtors, refugees, and criminals. The appeal of the new town created a wholesale exodus from neighboring Mézières. While Charleville was fortified, the rectangular area inside the walls, 1,550 by 2,100 feet, was much more spacious than the normal fortress town because it was intended as an impressive setting for Charles' ducal court. At the center was a handsome square with the ducal palace on one side and arcaded uniform houses on the other three. A fine fountain stood at the center of the plaza. A smaller place faced the western façade of the palace, and four other minor squares —one in each quarter—brought the total open area to the most generous proportion of any contemporary European city. Although Oglethorpe does not appear to have visited Charleville, he could easily have seen an elegant aerial engraving of it in that magnificent compendium, Caspar Merians' *Topographiae Galliae*, one volume of the extensive series which every well-equipped field commander carried on his campaigns as the equivalent of a modern Baedecker or a *Guide Michelin*.[56]

55. Lavedan, *Histoire de l'urbanisme*, II, 113–117.
56. Published at Frankfurt, 1666. The engraving precedes page 7 in Part 3: *Champagne und Brie*.

57. H. Stuart Jones, *Companion to Roman History* (Oxford, 1912), p. 226.
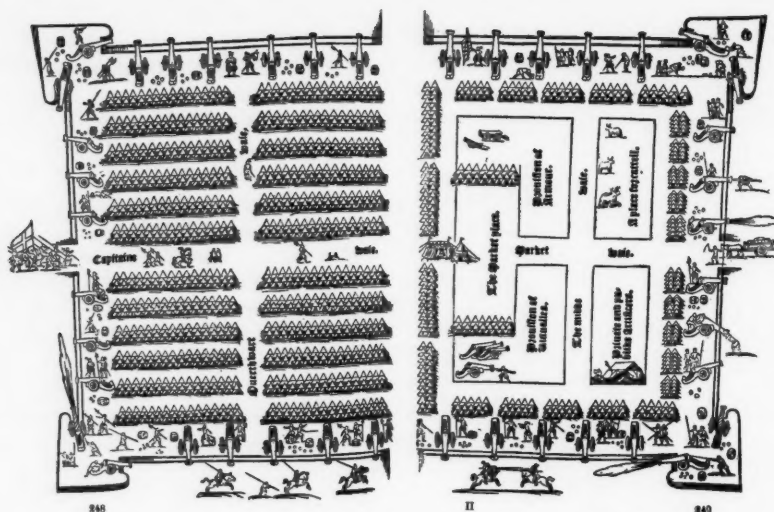58. Jones, *Companion to Roman History*, pp. 226–227.

Fig. 10. Plan of encampment for 24,000 foot and 2,000 horse, by Machiavelli, 1521 (from Machiavelli, *Arte della Guerra*, 1521).

Thus Vegetius was translated into French, English, and Bulgarian, and after a first printing at Utrecht in 1473 others soon appeared at Cologne, Antwerp, Paris, Rome, and Pisa, followed by German (1475) and English (1489) editions.

It was from Vegetius as well as Livy that Niccolò Machiavelli drew inspiration for the military reforms by which he, as second chancellor and secretary of the *Dieci di libertà e pace* (the war and interior office of the Florentine republic) aimed to supplant venal mercenaries by a disciplined and dedicated national militia capable of expelling French and Spanish invaders and of transforming chaotic city-states into a powerful and unified Italian nation. In 1506 he was appointed secretary of a new ministry, the *Nove dell'Ordinanza e Milizia*, and worked energetically to implement the new system. The collapse of the republic in 1512 ended his official career and forced him into penurious retirement, which he relieved by study and writing. *The Prince* and *The Discourses* are the best-known results. It was, however, in his *Arte della Guerra*, published in 1521, that Machiavelli presented the details of his system which was to ensure a large, thoroughly-trained citizen army, primarily of infantry, under unified command and ready for any emergency. Throughout he cites Roman examples. One chapter deals with ancient tactics, two with battle formations appropriate for the new forces, and another with fortifications and sieges.

Machiavelli devoted Book 6 to castramentation. He points out that 'Everyone needs rest and safety, because rest without safety is no perfect rest.' Following Roman precedent, he emphasizes the value of absolute uniformity in camp layout—so that 'it seems a moving city'—to ensure the preservation of order, discipline, and control. For a concrete illustration he gives an encampment for 24,000 footmen and 2,000 horsemen (fig. 10). Upon selection of the site and the planting of the captain's standard at the center, architects staked out the plan. Around the standard was the captain's area, a 225-foot square. From it ran: the Captain's Way, 67 feet wide and 1,531 long, to the main gate on the east; a Market Way to the west rear gate; and a Cross Way to the north and south gates and along which were ranged four blocks providing eighty lodgings for division officers and guests. The eastern half quartered two main and two auxiliary 'battles', each of 150 men at arms, 150 light horse and 4,500 foot soldiers, in two sets of six blocks, each 529 feet long, on each side of the Captain's Way. Officers occupied the west ends of each block. The western half provided a market, areas for armor, artificers, sutlers, cattle, and a surrounding line of lodgings for 'extraordinary pikemen', *veliti* (arquebus men), etc. Around the whole and guarded by earthen ramparts ran a 225-foot way for artillery. Bastions at the four corners covered cannon for flanking fire. The Roman origin of Machiavelli's plan is at once apparent.

Machiavelli's treatise, the first of its kind, attained wide distribution. A second printing was issued at Florence in 1529; six appeared at Venice between 1537 and 1554; and another at Palermo in 1587. It was included in the edition of the author's collected work published in 1550. A French translation appeared in 1546. In 1560 at London Peter Whitehorne published his English edition which was reprinted in 1573 and 1588. In the dedication to Elizabeth, Whitehorne cites his field experience under Charles v against the Moors in North Africa.

Fig. 11. View of encampment, by Fronsperger, 1573 (from O. Henne and Rhyn, *Kulturgeschichte des deutschen Volkes*, 1886).

During the late sixteenth century, as European captains wrestled with new problems created by rapid changes in military organization and weapons, scholars and theorists ransacked antiquity for guidelines. The first printed edition of Polybius appeared in 1530 and an Italian translation was published in 1552. In the same year the first edition of Aelianus' Τακτικὴ Θεωρία was printed at Venice. This work of the second century A.D. served as the textbook of Maurice of Nassau when at the end of the sixteenth century, in winning Holland's independence from Spain, he transformed his raw Dutch troops into the finest army of its day by drilling them in the complicated precision maneuvers used in ancient Macedonia.[59]

Classical writers not only contributed to tactical developments but also stimulated increasing interest in encampments. In 1555 Guillaume du Choul issued at Lyons his *Discours sur la castramentation et discipline militaire*

des Romains, a work based directly on the third-century treatise *De munitionibus castrorum* often attributed to the second-century surveyor Hyginus Gromaticus. Du Choul's volume received new printings in 1556, 1567, 1580, and 1581, an Italian translation in 1556 which was reprinted in 1559 and 1569, a Spanish edition in 1579, and finally a Latin version issued a century later in 1686 at Amsterdam.

It is not surprising that this knowledge of ancient camps was quickly adopted and developed by sixteenth-century writers of military manuals. In 1573 Leonhard Fronsperger issued at Nürnberg his *Kriegsbuch*, by which he hoped to make invincible the imperial army of the Hapsburgs. The work was copiously illustrated by the fine wood engravings of Jost Amman. In the section on camps Amman presents an aerial view which, though visually complicated by infinite detail, reveals a general pattern derived from Roman sources and Machiavelli (fig. 11).[60] Around the exterior a double line of baggage wag-

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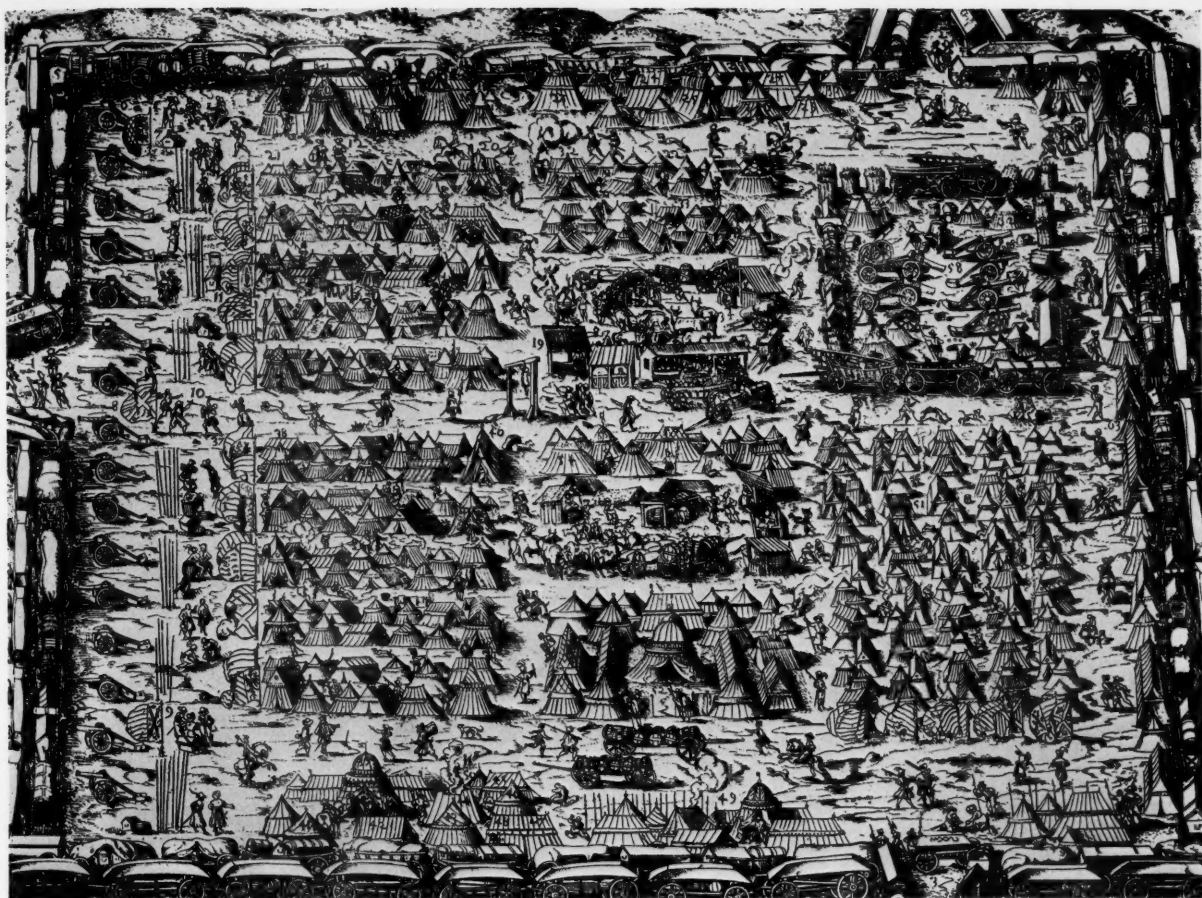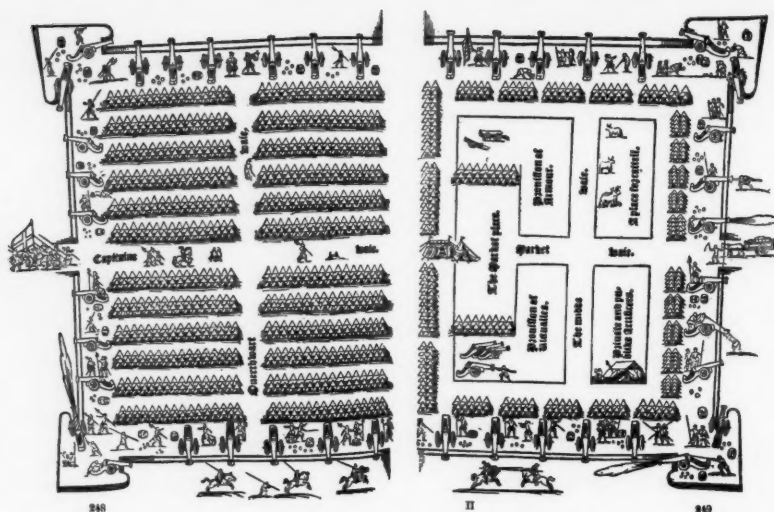
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60. Otto Henne am Rhyn, *Kulturgeschichte des deutschen Volkes* (Berlin, 1886), I, facing p. 354.

Fig. 12. Plan of riverside encampment, by D'Evoli, 1586 (from Cesare d'Evoli [Aevolus], *Delle Ordinanza et Battaglie*, 1586; courtesy New York Public Library).

In the last quarter of the sixteenth century experts began to extol more elaborate and systematic castramentation. One such was the Neapolitan, Cesare d'Evoli, who offered a work entitled *Delle Ordinanza et Battaglie*. In the edition issued at Rome in 1586 he added a new chapter on the planning of encampments on different types of terrain: in open country, on the bank of a stream, in a valley, adjoining a friendly fortress, and around an enemy fortress captured by assault. The plan intended for the stream-side site is of special interest (fig. 12). In it Evoli indicates the forty-eight blocks assigned to the several bodies of troops by means of a device of key letters, a device used by Machiavelli in his diagrams of battle formations. At the center four blocks marked G are intended for the tents of the commander and 1,200 knights. At the intersection of the axial thoroughfares a large square labeled P^A is opened to serve as a parade gr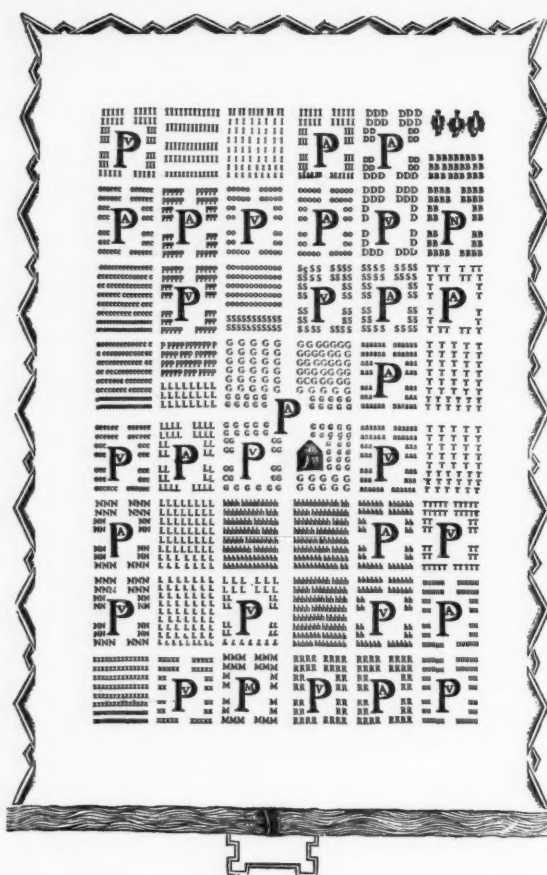ound. In the knights' block at the lower left of the parade, a secondary square, P^V, is to be devoted to the knights' commissary and mess. Groups of blocks are allocated to lancers (A), artillery (B and D), cavalry (C), Swiss (E), men at arms (H), Italians (I), and others for light cavalry, munitions, Spaniards, mounted arquebus companies, smiths, sappers, Germans, valley men, sutlers, and animals. Some of the groups do not fit neatly into the grid and are thus forced to share a block with another unit. Nevertheless, each group is provided in the blocks assigned to it with both a parade square and a commissary square. Thus the forty-eight blocks provide a total of thirty-one open squares, and contiguous blocks with squares are linked by secondary axial streets. The similarity of the individual squares and of the combination of contiguous blocks with squares to Oglethorpe's plat of Savannah is obvious.

Finally, there is an English representative of these campaign manuals which brings the line of contact close to Oglethorpe. The author was Robert Barret, who during the last quarter of the sixteenth century spent many years as a professional soldier with French, Italian, Spanish, and Dutch armies.[61] In 1598 he published in London a volume entitled *The Theorike and Practike of Modern Warres*, which he dedicated to Henry Herbert, second Earl of Pembroke and his eighteen-year-old son William, for whose instruction the text was composed.

In the section on encampments Barret gives a plan for the accommodation of 36,000 men, including 30,000 infantry and 6,000 cavalry (fig. 13). Of the infantry 15,000 carried muskets, 12,000 were pikemen, and 3,000 used short weapons; the cavalry consisted of 3,000 lancers, 1,000 men at arms, and 2,000 light horse with pistols. The assumed site lies like Evoli's in open country near a river. An outer line of fortification encloses a square area on three sides with the river forming the fourth. A second

61. *D.N.B.*, 'Barret, Robert.'

ons forms a protecting wall and bastions. The correspondence with the *wagenburg* of early mediaeval Germany and with the western wagon camps of American pioneers is noteworthy. A grid of lanes divides the internal area into blocks and ranges. At the center stands a rough commissary shed; nearby is the gibbet to advertise the penalty for disciplinary infractions. Small squares or compounds, lying beside the central space, contain cattle, swine, and other food supplies. The impressive tent of the commander lies surrounded by those of his staff in the lower central square; other leaders are located near their own forces. The ranges of company tents are marked by their respective banners. The artillery park in the upper right is surrounded by powder wagons and wicker gabions. In addition to camp organization Amman has given us a vivid picture of camp life.

Fig. 13. Plan of riverside encampment for 36,000 troops, by Barret, 1598 (from Robert Barret, *The Theorike and Practike of Modern Warres*, 1598).

line, a rampart of about 2,100 by 2,300 feet, has corner bastions and a wide space for cannon along all four sides. Within this the camp proper measured approximately 1,700 by 1,900 feet. When two narrow bands of blocks assigned to auxiliary craftsmen and labor are subtracted, the remaining area also forms a square about 1,700 feet on a side. Along its east side a band 500 feet wide gives a spacious parade ground 800 feet long, as well as room for a munitions dump at one end and quarters for cooks, bakers, butchers, sutlers, and commissary at the other. Once more two narrow side bands reduce the remaining area to a square, now about 1,500 feet on each side. This square is subdivided by five streets in each direction, which produces thirty-six blocks. Along the central transverse street three sets of four blocks are each arranged around large squares. Each pair of the remaining blocks receives a small rectangular plaza about 75 by 120 feet for roll call, drill, company business, recreation, and camp fires. In the inner side bands the plazas join east-west pairs. It should be noted that the outer perimeter of these blocks is assigned entirely to the 15,000 musketeers.

The orderly simplicity, the logic, and the convenience of Barret's plan are striking. Its appeal to professional soldiers and amateurs alike is obvious. And its significance for Savannah seems indisputable.

The underlying military purpose of the Georgia Trustees was minimized in their formal charter for reasons of diplomacy and, with the increasing interest of nineteenth- and twentieth-century scholars in the humanitarian aims of the colony, the martial motive tended to be forgotten. In 1929 Jefferson Randolph Anderson, distinguished son, lawyer, and scholar of Savannah and former president of the Georgia Historical Society, sought to redress this imbalance.[62] He pointed out that the Trustees carefully investigated each applicant, accepted only those who were able-bodied and capable of bearing arms, and until embarkation had those accepted, instructed, and drilled in arms by sergeants of the Royal Guards. He further notes that the Trustees adopted for military reasons the prohi-

62. J. R. Anderson, 'The Genesis of Georgia', *Georgia Historical Quarterly* XIII (1929), 231–283.

bition of slavery and the granting of land only on condition of military service. The entailment of land to male heirs was calculated to ensure a permanent body of stalwart citizen soldiers. Finally Anderson emphasized that during the first decade the energies of Oglethorpe and the colony were almost single-mindedly concentrated on establishing as quickly as possible a defendable foothold against inevitable Spanish attack.

With such a purposeful program so clearly defined and developed in such studied detail, it is small wonder that Oglethorpe—the prime driving force in the conception and implementation of the project—should plan the physical layout of the initial settlement on the lines of a military camp. He had seen them staked out and he had lived in them during his brief service with Prince Eugene at Belgrade fifteen years before. Unfortunately, the official reports of that campaign are too enthralled with spectacular troop movements and battle lines to record such mundane and standard features as entrenched camps, but there can be no question that Prince Eugene insisted on the most up-to-date, systematic, and orderly layouts for his operations.[63]

Furthermore, it is quite plausible to suppose that Oglethorpe could easily have known Barret's manual in his father's library at Westbrook, Surrey. Very probably, too, in view of the close English ties to newly-independent Holland, he knew the volume on castramentation written by Maurice of Nassau's engineer and quartermaster-general, Simon Stevin, either in the Rotterdam edition of 1617 or the French translation of the following year.[64] Moreover, a decade earlier Leyden presses had issued Hyginus' previously mentioned treatise on Roman camps.

It must be emphasized, of course, that the Savannah plan was certainly not an unthinking copy of Barret's model. Oglethorpe realistically simplified Barret's parade ground and fortifications to a reasonable stockade, but he set aside enough common land to allow later construction of permanent defenses—such as De Brahm did plan in 1757—without having to disturb the outer land grants.

He adopted Barret's pattern of blocks and squares, but he carefully adjusted these elements to fit the purposes of a settlement. It is perfectly conceivable that he even foresaw that the initial squares, once the Spanish danger had been repelled, would become fine civic amenities reminiscent of fashionable Mayfair. Because of their orderly combination the squares would surpass in elegant spaciousness any urban examples then existing. Thus it is fair to conclude that Oglethorpe by infusing new meanings into suitable precedents followed the method so often observed in the work of creative geniuses throughout all history. For this reason we must accord Oglethorpe in his own right an honorable place among the practitioners of city planning.

Except for New Ebenezer with its pair of ward units, Oglethorpe did not use the Savannah system elsewhere. Later, however, it inspired the squares of Sunbury and Brunswick, though these were less liberal in spaciousness and imagination.[65] In all other instances the promoters of later colonial and early republican new towns were so eager to exploit their land for maximum profit that the most generous felt expansively prodigal if he contributed a small central plaza for a market. For more than two centuries Savannah has been an object lesson which proves the penalty inflicted elsewhere by such short-sighted greed. Even in many cities which initially received a central square, later generations have often been so myopic and parsimonious that they could not resist the temptation to convert their spatial inheritance into free sites for new public buildings. By 1788 Charleston's square had already become only another street crossing, so constricted that Washington Square was later opened at considerable expense to compensate the loss. The massacre at Philadelphia was even more tragic and more recent. Its central square was sacrificed in the 1870s when it was filled overwhelmingly by the largest and most strident city hall in the entire country. One of Penn's recreational squares now serves as the foyer of the Camden bridge. Through another was cut in the 1920s the present car-packed Fairmount Parkway.

Fortunately, Savannah sacrificed only one square to provide a covered market, now replaced by a parking garage. But what is even more miraculous, the early nineteenth-century city, far from destroying its patrimony of space, quadrupled it, thus preserving and underscoring its unique character. Today, as the behemoth of Detroit 'progress' threatens throughout our nation to extinguish the last vestiges of urban amenity, civility, and beauty, it will be a fair and intriguing test of modern Savannah's imagination, resourcefulness, and determination to see how it conserves and breathes new life into the irreplaceable legacy of space bequeathed it by its beneficent founder and planner, James Edward Oglethorpe.

63. Austro-Hungarian Monarchy, *Feldzuge des prinzen Eugen* (1876–1891), I, Tafel XII, gives diagrams drawn in the nineteenth century of unfortified camps of a foot regiment, a cavalry regiment, and an artillery park. While these indicate the normal orderliness of earlier models, the diagrams do not contain block outlines. If these were present the effect would probably not be unlike Barret's plan. Jean Dumont, *Batailles gagnées par le S. Prince Fr. Eugène de Savoye* (1725), plate facing p. 132, presents a view of the battle of Belgrade in which the imperial camp is shown in the foreground with lines of troop tents, the general's tent at the center, and earth ramparts. In the distance is a Turkish camp. Due to the point of view, neither group reveals any formal camp plan, but, since such details were of slight interest in comparison with the action depicted, the cavalier representation of the camps is not surprising.

64. Simon Stevin, *Castro metatio, dat is Legermeting, na d'oordening en't ghebruye van Mauritz, prince Tan Oraengien* (Rotterdam, 1617).

65. Nichols, *Early Architecture of Georgia*, pp. 13–15; Reps, 'Town Planning in Colonial Georgia', pp. 279–280.

William F. Small, 'Architect of the City'

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In many of the older American cities a small group of families often held positions of overwhelming social, financial, and political importance.[1] Less frequently architectural dynasties were formed, and Baltimore must be unique for the number it nourished. Robert Cary Long, Sr. (1770–1833) spent almost his whole life in Baltimore, while his son, Robert Cary Long, Jr. (1810–1849) worked as much outside as in the city. The English-born Benjamin Henry Latrobe (1764–1820) designed works which have given Baltimore a prominent place in American architectural history, and his sons and later descendants, as engineers, lawyers, and politicians, achieved distinction through the nineteenth and into the twentieth centuries. In the eighteenth century Jacob Small, Sr. designed and constructed the still-standing Otterbein Church (1784); Jacob Small, Jr. (1772–1851) amassed a fortune as a builder and lumber dealer, served as mayor from 1826 to 1831, and late in life assumed the title 'architect'; and in the third generation William F. Small (1798–1832) was the first native Baltimorean to receive professional architectural training.

Upon his death at the age of thirty-four William Small received a brief obituary in which he was called 'Architect of the city'.[2] This was probably not an official position, although he designed several municipal buildings, and the charge of nepotism may be raised because his father was mayor. There can be no doubt, however, that Small was more than competent, that he created a style symbolic of the city's political and social position at that moment.

Although he undoubtedly served an apprenticeship with his father, William had the distinct advantage of about two years of study with Latrobe.[3] By September 1817 Latrobe reported from Washington that Small's drawing was rapidly improving, and that he was occupied largely with 'the general processes of heavy building', presumably on the Capitol reconstruction. Latrobe wrote that he was training Small specifically for the job of completing the Cathedral in Baltimore. Small moved to Baltimore with Latrobe early in 1818 and, after Latrobe's departure for New Orleans in 1819, continued the operation of the architect's office in the unfinished Exchange.

No portrait or physical description of Small has survived, nor any comment on his personality and character. Evidently he made a warm impression on Latrobe's Italian sculptors in Washington. In asking Small to do him some favors, G. Andrei conveyed warm greetings from his whole family as well as from Giuseppe Franzoni and their assistants.[4] When Latrobe sent a check to his wife from New Orleans, there was no hesitation in having Small change it.[5] Undoubtedly Small helped the Latrobe family to resettle in Baltimore after the death of his mentor.

Of his personal life we have few details. He was married on 22 November 1825, and at the same time was active, as a director, in organizing the Maryland Institute for the Promotion of the Mechanic Arts. He was sufficiently civic-minded to participate in the agitation for a canal linking Baltimore with the Susquehanna River near York,

1. Previous references to William F. Small are: Richard H. Howland and Eleanor P. Spencer, *The Architecture of Baltimore* (Baltimore, 1953), pp. 59–61; and Talbot F. Hamlin, *Benjamin Henry Latrobe* (New York, 1955), p. 491. Comments in Clayton C. Hall (ed.), *Baltimore, Its History and Its People*, 3 vols. (New York & Chicago, 1912), I, 133–134, are repetitions of statements made by Thomas Griffith in his *Annals of Baltimore* (Baltimore, 1824[–29]).

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2. *Baltimore American*, 18 May 1832.

3. Latrobe's correspondence with Jacob Small, Jr. began in April 1816 when the latter became the builder of the Baltimore Exchange. Latrobe's polygraphic *Letterbooks*, in the Maryland Historical Society, are the only record of these letters. References to William Small occur in letters of 4 March and 3, 10 September 1817.

4. Maryland Historical Society (hereafter M.H.S.); Andrei to Small, Washington, 25 May 1818.

5. Wilmington, Delaware, Gamble Latrobe Papers, Latrobe to Mary E. Latrobe, New Orleans, 18 May 1819. Mrs. Gamble Latrobe has generously permitted the study of documents in her possession.

Pa., and in 1824 he designed an elaborate arch celebrating Lafayette's visit to the city. Although he joined with others in January 1830 to request a gas light on the street corner near his home, a year earlier he and many others were charged by a bailiff with failure to remove the snow from before their houses. Whether liberal in spirit or shrewd financially, he invested in a theater and in 1828, with the other owners, he petitioned the city for tax relief. His will, dated 16 May 1832, shows his faith in his wife's intelligence and ability. She received all his possessions and was given sole responsibility for their daughter, Ann Amelia Small.[6]

Under Latrobe Small received an extensive training in architectural draftsmanship and in heavy construction. During his apprenticeship the Latrobe office was occupied with large public buildings, including the plans for the Baltimore Library and for the Second Bank of the United States in Philadelphia, and the reconstruction of the Federal buildings in Washington.[7] His substantial training not only fitted him for the general completion of the Baltimore Exchange, but also enabled him to participate actively during the summer of 1819 in redesigning the interior of its southeast wing to house the Baltimore branch of the Bank of the United States.[8] In 1828 Small offered a proposal for a warehouse to be erected by the Federal government as the southwest wing of the Exchange.[9] At the time of his death he was preparing the same corner for the Exchange Hotel, and in 1835 this wing was constructed as one story over a high basement.[10] With his position as Latrobe's successor in Baltimore, he was the logical person to construct the Harper House. Latrobe has traditionally been credited with designing this house for his friend General Robert Goodloe Harper, and Small may have been responsible for some puzzling non-Latro-

bean aspects, like the bracketed window frames, which may have been introduced during construction.[11]

Both the form and nature of Small's architectural drawings show his great debt to Latrobe, for example, his practice of presenting as a booklet a whole group of plans, elevations, and sections. Twenty-two signed and dated drawings from the last years of his life are arranged in three groups, each for a specific structure.[12] For the proposed warehouse at the Exchange a set of eight drawings survives, dated 5, 6 February and 5, 6 July 1828. Eight more, dated 14–17 November 1831 and still gathered together by the original ribbon, refer to Folly Quarter. Six others of December 1830 were made for the J. I. Cohen House. All display his master's combination of fine lines and dimensions in India ink and as many as five color washes for shading and the differentiation of materials. Architectural parts in the drawings retain the delicacy and precision of Latrobe. Landscape elements, however, show a coarsening in the large sketchy brushstrokes and the muddy colors, especially the greens and yellows. He had not been with Latrobe long enough to develop this aspect of rendering technique, but, seeking to improve this weakness, he borrowed a book on landscape painting from the Baltimore Library Company in 1821.[13] Small did not employ one type of drawing in which Latrobe frequently indulged, the elaborate rendering in perspective. Perhaps, again, Latrobe did not have time to pass on this technique; but this lack may also reflect a contemporary feeling that the theatrical perspective was a slightly unethical device for overcoming the reluctance of clients.[14] In any case Small acquired a direct, precise manner, a little closer to the workmanlike technique of Mills, but still serving as testimony to one of Latrobe's important contributions to the architectural profession in America.

6. Marriage: *Baltimore Gazette*, 26 November 1825. Maryland Institute: *Laws of Maryland*. 1825, Dec. Sess., chap. IV. Canals: see below. Arch: *Baltimore American*, 9 October 1824. Street light: Baltimore, City Hall, Archives, 1830, no. 482. Snow removal: *ibid.*, 1829, nos. 1344, 1611. Theater: *ibid.*, 1828, no. 372. Will: Baltimore County, Maryland, *Wills*, book 14, f. 183.

In 1828, a very busy year for Small, he petitioned the City Commissioners on 12 August to set the boundaries of a plot at the northeast corner of Howard Street and Dutch Alley (now Marion Street). Such a routine request was customarily made by the owner of the property. It has not yet been determined whether Small erected a building here. City Hall, Archives, 1828, no. 236.

7. Hamlin, *Latrobe*, pp. 497–503, pls. 32, 34.

8. Maximilian Godefroy's plan for this bank interior had been accepted in the autumn of 1818. After a new board of directors took office in the spring of 1819, all of Godefroy's work was demolished by Jacob Small, Jr. in preparation for a new plan. M.H.S., Godefroy to the President and Directors, Baltimore, 13 August 1819.

9. A set of eight drawings for this proposal is preserved in the M.H.S. Additions to the Exchange followed the style of the original structure.

10. William Dunlap, *History . . . of the Arts of Design in the United States*, 2nd ed., 3 vols. (Boston, 1918), III, 334.

11. See Hamlin, *Latrobe*, pp. 498–499. Pascault Row (1819–1822), on West Lexington Street, may be the work of Small or another local imitator of Latrobe. Two motifs, the rectangular panel bearing an oval in relief and the distyle-in-antis entry at ground level were taken directly from Latrobe's house (1816) for William Lorman on North Charles and Lexington Streets.

12. All are owned by the M.H.S.

13. William Gilpin, *Three Essays: on Picturesque Beauty; on Picturesque Travel; and on Sketching Landscape* (London, 1794). Loans from the Baltimore Library Company are recorded in the manuscript *Librarian's Ledger* preserved in the M.H.S. Compare Small's treatment of ground in his elevation of the McTavish House (fig. 11) with Gilpin's advice on sketching a foreground in his *Three Essays*, pp. 69–70: 'You need not be very nice in finishing them, even when you mean to *adorn* your sketches. . . . Little more is necessary, than to produce the effect you desire.'

14. Godefroy referred to such renderings as 'professional charlatanism', and Latrobe's joking use of this expression sparked the argument which destroyed their close, ten-year friendship. See in his *Letterbooks* Latrobe to Godefroy, Washington, 27 May, and Baltimore, 5 June 1816; Latrobe to John Spear Smith, Baltimore, 5 June 1816. See also Durand's statement that perspectives were 'proscribed': J.-N.-L. Durand, *Précis des leçons d'architecture*, 2 vols. (Paris, 1802–1805), I, iv–vi.

In architecture Small displayed competence and adaptability, and independence appeared slowly. In his mid-twenties he designed and built two important public structures, the Athenaeum of 1824–1826 (fig. 1) and Barnum's City Hotel of 1825–1827 (fig. 2).[15] Both derived from Latrobe's late manner but lacked his judiciousness in scale and proportions and in the handling of the decorative vocabulary. The Athenaeum, measuring eighty-six by seventy-one feet, had three high stories on St. Paul's Lane and four stories on Lexington Street—a disposition of levels well adjusted at the corner of the large building. The design was called 'modern and beautiful', a credit to his 'taste and skill'. Although 'finished in a plain, substantial manner', it was 'of the best materials' and contained a 'splendid saloon', a number of large halls, and 'several apartments well calculated for office room & public Institutions'. It housed as well one of the best equipped libraries in the country. In large part the exterior treatment was an adaptation of motifs used in the Exchange, such as arched openings and recesses, the 'aqueduct' motif, decorative panels, and large entrance vestibules.

Barnum's City Hotel, completed in 1827 but opened for partial use on 27 September 1826, was one of the largest buildings in the city and by all accounts the largest hotel in the country for several years. Its main front on Monument Square measured 117 feet and the wings paralleling Fayette Street extended almost 200 feet. Above the high basement of granite were four stories of brick and a wooden penthouse. Despite the total of more than 200 rooms, single travelers usually had to share accommodations. The food and drink, however, were excellent, even when 500 sat to breakfast. Such rare luxuries as warm baths, in the basement, and curtained beds made the hotel, for Charles Dickens and others, one of the most comfortable in America. A needy traveler could supply himself on the premises with haberdashery, toiletries, and tobacco, and take advantage of the barber shop. Other stores in the basement level opened onto the street. The spacious barroom and the bartender served the functions of the lobby and desk clerk, offices introduced in the hotel world a few years later. Ladies enjoyed a separate dining room, and all patrons could use the reading room where

Fig. 1. Athenaeum, by Wm. Small, 1824–1826 (from [Latrobe], *Picture of Baltimore*).

Fig. 2. City Hotel, by Wm. Small, 1825–1827 (from [Latrobe], *Picture of Baltimore*).

magazines and newspapers from other cities were supplied, an accommodation practiced earlier by David Barnum at the Boston Exchange Coffee House of which he had been landlord.[16] The reading room also exhibited a new device, the mail chute, for the basement was occupied by the Post Office. Even the postal employees enjoyed certain conveniences such as the large entries which admitted the mail coaches. The huge dining room may have been located on the main level between the two wings, where it was extensively glazed and lit by gas at night.

15. Athenaeum: Baltimore Equitable Society, *Record of Surveys*, book H, p. 283, policy no. 9101, at $30,000, 15 April 1826 (I am indebted to Mr. Arthur L. Keigler, Treasurer of the Society, for permission to consult these records); Griffith, *Annals*, p. 251; [John H. B. Latrobe], *Picture of Baltimore* (Baltimore, 1832), pp. 198–199 and illus.; Charles Varle, *Complete View of Baltimore* (Baltimore, 1834), p. 35. City Hotel: Griffith, *Annals*, pp. 251–252; [Latrobe], *Picture*, pp. 232–233 and illus.; Varle, *Complete View*, p. 80; Jefferson Williamson, *The American Hotel* (New York, 1930), pp. 11, 24, 47, 56; see also references in Raphael Semmes, *Baltimore as Seen by Visitors* (Baltimore, 1953), and illus. opp. p. 85. The Athenaeum building was destroyed by fire in 1873. In the early fifties the City Hotel was completely remodeled.

16. Before constructing the City Hotel Barnum was proprietor of the Indian Queen in Baltimore, a hostelry of the old-fashioned inn variety. In his new structure Barnum rather than Small was responsible for the features which made it a modern hotel. Many of these were derived from Barnum's Boston Exchange Coffee House of 1808, a seven-story hotel with some 210 rooms designed by Jonathan Whiting. After its spectacular destruction by fire in 1818 Boston lacked a large hotel until Isaiah Rogers' Tremont House, with 170 rooms, opened in 1829. Rogers established an architectural type with a U-shaped plan and with modern features like the lobby. The Coffee House, apparently, was a different type, having a galleried

As on the Athenaeum the decorative vocabulary depended on Latrobe, but the motifs were fewer in number and in their handling, moreover, a mannerism appeared. Arched recesses for windows were confined to the main story, but the paneled bibs were repeated under the basement windows. The raised main entrance, and the window above it, exhibited in largest size the triple opening composed of a wide central rectangle and two narrow side lights; and this shape was repeated in the basement windows and doors, in the windows of the penthouse and small Latrobean cupola, and in the Palladian windows along the side. Division into three parts, moreover, was a major device in breaking down the expanse of the front and lateral façades. In contrast to the movement of the crenellations along the side, resulting from the numerous chimneys, a stability and repose were implicit in the horizontality of the ashlar joints in the basement and penthouse walls and in the strong but simple cornice. The varied motifs, recesses, and textures were employed to organize and enliven the huge brick block opened primarily by windows of monotonously similar shape and size.

These two buildings, the Athenaeum and the City Hotel, characterized Small's work in the mid-twenties. The Seaman's Union Bethel, of about the same date, was a smaller version of this manner.[17] Some of these elements are present also in the magnificent Caton-Carroll House (about 1823) and suggest Small as its designer; for instance, there is the slight projection of the central portion of the façade, the deep, simple cornice, and the rectangular paneling along the front and sides.[18] Inside, the fine but sober finish and the spaciousness of the wide hallways and large rooms tally with his later domestic works. This may have been his first work for Charles Carroll of Carrollton, and in his remaining years he was to become Carroll's preferred architect.

A limited group of works by Small belongs in the category of the Greek Revival. The two most imposing examples were done in collaboration with William Howard (1793–1834), a doctor and teacher of anatomy and natural philosophy.[19] Howard was, as well, an amateur artist and civil engineer, and the choice of the Greek Revival treatment was certainly his. In 1822 the philanthropist Isaac McKim housed the Free School, established by his father, in the building designed by Howard and Small.[20] Patterning the hexastyle Doric front on the Theseum, they depended on illustrative plates for details, scale, and dimensions. The Baltimore Library Company provided the book and at the same time recorded a date for the commencement of the design: Howard borrowed the third volume of Peter Nicholson's *Principles of Architecture* in September 1820.[21] A capable archaeological exercise, the School has a simple cella behind the portico and windows with slightly canted frames in the smoothfaced walls. Behind this building lay the designs of Latrobe for the Bank in Philadelphia. A one-room urban school presided over by one teacher, the institution set the fashion in public education just as the building set the style and type for public schools in Baltimore.

State legislation in 1826 and municipal in 1827 led to publicly financed education in Baltimore.[22] In 1829 three schools opened in rented quarters. General interest was so great that in 1832 John H. B. Latrobe devoted eleven pages of his guidebook to an essay on the planning and operation of these schools.[23] In their first report (1829) the Commissioners of Public Schools strongly urged the construction of special school buildings which would provide facilities adapted to the system of instruction. The first such building, Male School No. 3 (fig. 3) on Aisquith Street, was opened for use on 8 December 1830; Small, as architect, received $100 for his services, and his work was so much admired that he immediately began others. Male School No. 1 (fig. 4) at Green and Fayette Streets was almost ready by the winter of 1831, but difficulties in the supply of materials postponed its opening

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and 'domed' rotunda rising the full height of the building. The City Hotel in Baltimore and Holt's (later the United States) Hotel in New York, opened 3 January 1833, by Stephen B. Holt, were similar and may have retained the central well. Both had a penthouse and cupola where shipowners and merchants could keep a watch for incoming vessels. Perhaps the orientation to the sea determined the unusual height of this hotel type; Rogers' essentially horizontal type was probably kept lower by the proportions enforced by the Greek Revival style. See the *Federal Gazette*, 10 November 1818; Williamson, *American Hotel*, pp. 29–30; Priscilla Metcalf, 'Letter', *Journal of the Society of Architectural Historians* XVII-2 (1958), 32.

17. [Latrobe], *Picture*, p. 143 and illus.; Varle, *Complete View*, p. 54 and illus. The Bethel was located at Aliceanna and South Bethel Streets: *City Atlas of Baltimore*, 2 vols. (Philadelphia, 1876–1877), I, pl. C.

18. Howland and Spencer, *Baltimore*, p. 17, pl. 22.

19. A man of many parts, Howard tried his hand at architectural and figural representation; his well-known print of St. Paul's Church was probably made in 1816: note by Fielding Lucas, 1892, in M.H.S.; see also [Latrobe], *Picture*, pp. 133–134; lower half reproduced in Howland and Spencer, *Baltimore*, pl. 51. A member of the first American party to scale Mont Blanc, he published an account of this feat: *Journey to the Summit of Mt. Blanc, 1819* (Baltimore, 1821).

There is no contemporary evidence suggesting that Small collaborated with Howard on the McKim Free School and the Howard mansion.

20. Griffith, *Annals*, p. 280; Howland and Spencer, *Baltimore*, pp. 59–60, pl. 52.

21. The Library Company owned the first edition (London, [1795–]1798) in which the plates were not numbered consecutively. In the third edition (London, 1827) the Theseum was illustrated in vol. III, pls. 128–129.

22. *Report of the Commissioners of Public Schools to the City Council of Baltimore* (Baltimore, 1829); data in these paragraphs are drawn from the first five annual reports (1829–1834).

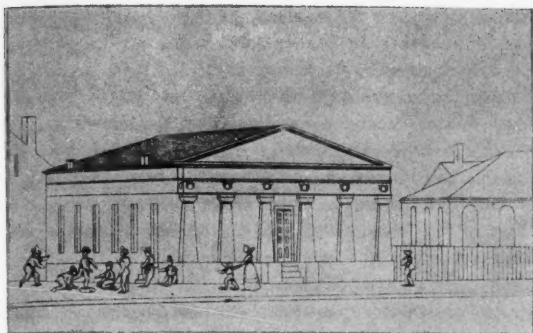23. [Latrobe], *Picture*, pp. 216–226 and illus.

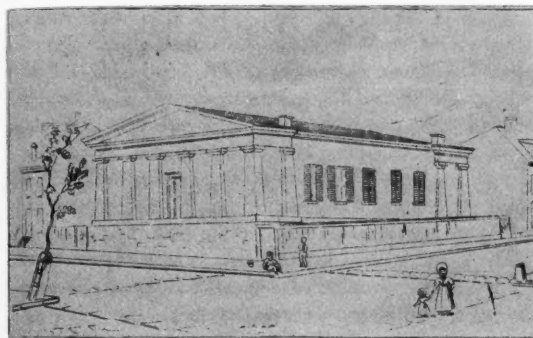Fig. 3. Male School No. 3, Aisquith Street, 1830, by Wm. Small (from [Latrobe], *Picture of Baltimore*).

Fig. 4. Public School No. 1, Green and Fayette Streets, by Wm. Small, 1831–1832 (from [Latrobe], *Picture of Baltimore*).

until the following summer. It had a basement large enough for 300 girls—Female School No. 1. The two-story building for Male and Female Schools No. 2 at Broadway and Bank Streets opened in 1834, but of its appearance we have no record. School No. 4, also two-storied (meaning one story over a high basement), was in construction in 1832, the year of Small's death, but it was not opened until the winter of 1833–1834.[24] All were similar in plan, having two ranges of long desks on an inclined floor facing the master's desk on a platform at one end. In a room seventy-five to eighty feet long and forty-five to fifty feet wide, we are told, the master could handle up to 400 pupils with the aid of a class monitor seated at each desk. Only one, No. 3 on Aisquith Street, was identified as Small's work, but the common style of the three known buildings bespeaks the same designer. Inasmuch as his father still held the office of mayor, it was probably no coincidence that he served as architect.

24. Howland and Spencer, *Baltimore*, p. 60, pl. 53.

The schools were simple blocks of a temple shape and had at one or both ends a pseudoportico created by squat Tuscan pilasters similar to the piers Small was to use on Folly Quarter. Another resemblance with the latter building was in the simple entablature with modillioned cornice. Basements were built of rusticated stone after No. 1 suffered damage from the children. The upper structure was of brick, its smooth surface and simple window openings indicative of Small's treatment of the wall. The type he created was simple and relatively economical, yet gave vent to the often-repeated desire of Baltimoreans for a display of taste with discretion. Not strictly archaeological, the style of the schools is an excellent example of the way in which the ancient forms were adapted for nineteenth-century American materials and conditions.

Small's single essay in a proper Greek Revival temple front, discounting his collaborations with Howard, occurred in the First English Lutheran Church (fig. 5).[25] Rapid construction following the cornerstone ceremony in the autumn of 1825 made the church ready for consecration on 28 May 1826. Although the building was extended forward in the latter part of 1832, undoubtedly the original façade was reconstructed on the new site. For the detailing of this design Small borrowed the first volume of James Stuart's *Antiquities of Athens* from the Library Company and used Stuart's plates of the Ionic temple near the Ilissus.[26] Much admired in America at this time, this prototype was often adapted freely. Small was strictly archae-

25. [Latrobe], *Picture*, p. 140; Varle, *Complete View*, p. 51; *Register of the First English Lutheran Church . . .* (Baltimore, 1859), pp. 4–6.
26. James Stuart and Nicholas Revett, *The Antiquities of Athens*, 4 vols. (London, 1762–1787–1794–1816), I, chap. II and plates.

Fig. 5. First English Lutheran Church, by Wm. Small, 1825–1826, 1832. Photographed after destruction by fire in 1873 (courtesy Peale Museum).

Fig. 6. Benjamin I. Cohen House, by Wm. Small, 1827–1828 (courtesy Peale Museum).
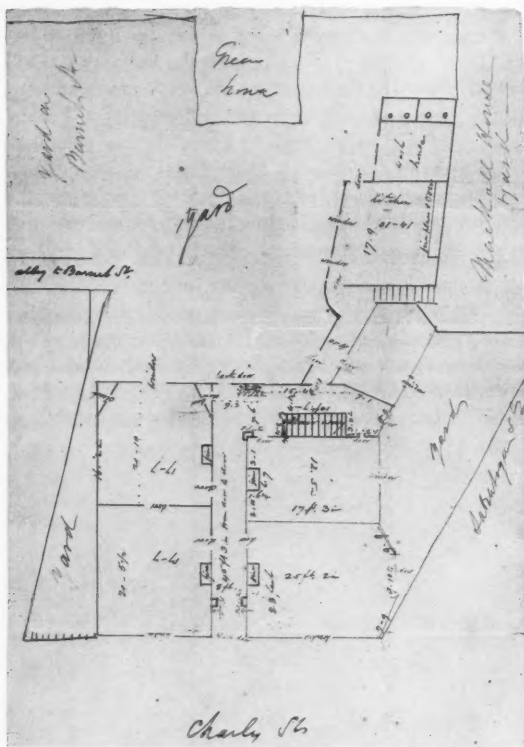

Fig. 7. Sketch plan, Benjamin I. Cohen House (courtesy Maryland Historical Society).

ological in copying the four-columned front, and so produced a portico projecting from rather than spanning the full width of the building. Additional elegance came from the canted door and window frames of stone and the eared

corners of all the façade openings. This handsome front stood on Lexington Street, between Howard and Park, until its destruction by fire in 1873.

A similar projecting portico monumentalized William Howard's mansion (completed 1829), the second collaboration between Howard and Small.[27] Located at North Charles and Franklin Streets, directly across from Maximilian Godefroy's Unitarian Church (1817–1818), the Howard House competed with the church façade by presenting a tetrastyle Ionic portico modeled on the Erechtheum before its five-bay front. Like the church the house had a large, continuous, archaeologically correct entablature at the roof line tying together the portico, main structure, and back buildings. The brick walls were opened by the usual stone-silled windows, except those of the main-floor front which had full, corniced frames and small brackets at the bottom. Above the main front the stepped wall concealing the gable end (a typical firewall in Baltimore) was given some pretension by the unusual hint of a cornice molding. After Howard's death the building housed the Athenaeum, and on its demolition the marble columns were salvaged for an estate outside the city. Of the house plan, nothing is known. Perhaps some ideas, as well as decorative details, derived from Palladio, for Howard borrowed the Library Company's Leoni translation from July to September 1828.

The Greek Revival was certainly Howard's preference. He perused three volumes of Stuart's *Antiquities* in a leisurely manner in 1830–1831, after hanging out his shingle as a civil engineer. Beginning perhaps in 1827, he worked with John H. B. and the younger Benjamin H. Latrobe in surveying the bed of the Baltimore and Ohio Railroad. For the two works with a strong historical expression, the McKim Free School and his own house, he required professional aid, at the same time impressing upon Small his own taste and preference. In the public schools Grecisms were diluted and merged into the manner Small was developing out of Latrobe's late works.

It was in residential work of the late twenties that Small's personal style materialized. Two brick dwellings, at the corner of North Charles and Saratoga Streets, were begun in 1827, one for Benjamin I. Cohen and one for Small himself.[28] By 13 March 1828 the end wall of his own home was standing and served the City Commissioners as a point for fixing the boundaries of the next lot along Saratoga Street. Fortunately, the Cohen House (known as the Old Robinson House) has been recorded in a photograph and a manuscript plan (figs. 6, 7). Small solved the problem of an irregular plot by designing the Charles Street

27. Griffith, *Annals*, p. 280; [Latrobe], *Picture*, p. 236; Howland and Spencer, *Baltimore*, p. 61, pl. 56.

28. City Hall, Archives, 1828, no. 259; Griffith, *Annals*, pp. 271–272; [James M. Nicholson], 'Mrs. B. I. Cohen's Fancy Dress Party', *Maryland Historical Magazine* XIV (1919), 348–358. A manuscript

side as the façade, virtually ignoring the end where a semi-octagon reflected interior room shapes. On the front he employed tripartite openings, minimized the projections and recessions, and contrasted the colors and textures to emphasize the wall as a thin, enclosing surface. This quality was carried into the octagonal end particularly by the alternate setback and projection of the sides. Like the arched recesses, setbacks were only the width of a brick, and specially molded bricks were used for bonding the angles securely. Other devices reinforced the planarity of the wall: suppression of the massiveness of a column, or even pilaster, in favor of the narrow post topped by a block with a rosette; the slightness of the projection of the door frame; the carrying forward of the window frame and cornice from the recess to the outer wall surface.

Design and decorative motifs, continuous, unarticulated wall surfaces, and even the reduction of classical details had their origin in the work of Latrobe and Mills. Small worked these elements into a simplified style of great sobriety. The manner was, in addition, formed in good part by craftsmen's habits and the point of view of practical economy: relatively unworked wall planes, dimensions established by the width of the brick, the brick arch (a popular device in the repertoire of Baltimore bricklayers), marble sawed straight rather than in classical curves, and a decorative rosette easily marked out with the compass and straight edge.

Small's taste accounts for the note of elegance in the precisely laid out pattern. The spotting of identical motifs over a façade is particularly a nineteenth-century method of designing. He had employed it on the Athenaeum and the City Hotel. Now, reaching maturity, Small displayed a growing restraint in the number and variety of motifs, and he developed a personal formula with the triple window placed above and to either side of the triple doorway.[29] Lacking prints and photographs, we cannot check his consistency and awareness in employing this style on other works of this date. Not only his own house around the corner, but two houses for Dr. Ashton Alexander at the southeast corner of Monument Square were then under construction.[30]
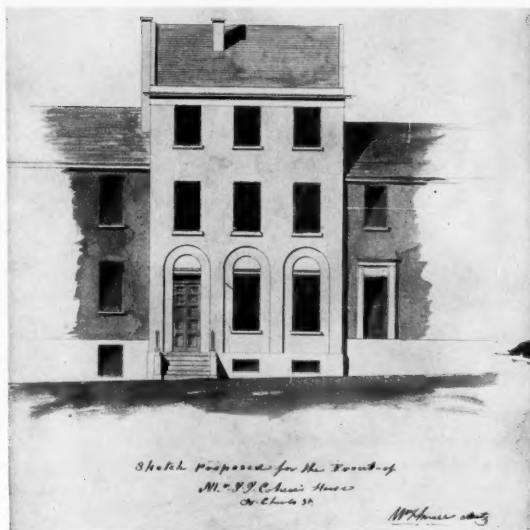

Fig. 8. Elevation, Joshua I. Cohen House, by Wm. Small, 1830 (courtesy Maryland Historical Society).

Two and a half years later, in December 1830, Small designed another modest residence. This one was for Joshua I. Cohen at 415 North Charles Street (figs. 8, 9).[31] Completed about 1834, the house stood until the 1930s when it was completely altered for modern business use. The original drawings have preserved the appearance of the plain wall surface, the clean-cut windows with stone sills, and the three arched recesses. With their blind tympana and truncated cornices the main windows duplicated those of the Benjamin Cohen House and the Hotel, lacking only the paneled bibs of the latter. To hold snow on a sloping roof, the simple cornice carried a plain board almost as high as the frieze below it. The small third-floor windows were suspended from the frieze, like those designed by Robert Mills for Waterloo Row (1817–1819).[32] Above the granite basement the brick was stuccoed, emphasizing the wall plane.

Inasmuch as they share many elements and throw light on each other, the plans for these two Cohen houses may well be considered together. Joshua's, in fact, may be described as approximately half of Benjamin's in width and twice as high. They enjoyed in common wide entrance halls, rooms with an octagonal end, and two drawing rooms connected by a large opening with folding doors.

plan, now in M.H.S., was drawn while the Benjamin Cohen House was in the possession of the Olivers: see note by Ann C. Iglehart in M.H.S. Although it is drastically out of scale, this plan accurately records dimensions and the disposition of the parts. The window on the right of the Benjamin Cohen House originally had the tripartite form which survived in other windows and the door. When this window was remodeled in the later nineteenth century, superfluous parts were reused for the opening introduced into the octagonal wall.

29. Although it was a personal development, Small's formula recalls the attitude embodied in the complex system of *combinaisons verticales* in Durand's *mécanisme de la composition*: see Durand, *Précis*, II, 20.

30. Ordered by the City Commissioners to suspend construction, Dr. Alexander petitioned the Mayor on 17 March 1828 for permis-

sion to continue, adding that Small would forward the plan and drawings for these two houses: City Hall, Archives, 1828, no. 433; see also Letitia Stockett, *Baltimore, a not too Serious History* (Baltimore, 1928), pp. 153–154.

31. Howland and Spencer, *Baltimore*, pp. 60–61, pl. 54.
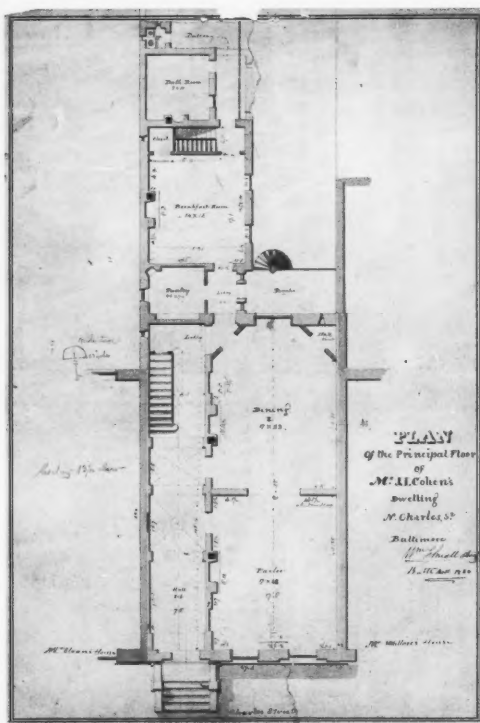
32. Howland and Spencer, *Baltimore*, p. 53, pl. 44.

Fig. 9. Plan, Joshua I. Cohen House, by Wm. Small, 1830 (courtesy Maryland Historical Society).

The wide halls were a notably lavish use of space for a city dwelling; they were about half the width of the large rectangular rooms at the sides. The broader, and in a sense grosser, proportions matched Small's use of octagonal bays and of a rectangular niche beside the fireplace to balance a door. Where Latrobe employed recesses of varying shapes for a subtle modeling of the interior volumes Small was more direct, obvious, and limited. And the diagonal walls gave him practical difficulties. Although one corner could be used for a closet, the other often had to serve as an entrance to the room. In the Joshua Cohen House he was forced to use the diagonal wall for the passageway from the main house to the back buildings, resulting on the second floor in an expedient but awkward device.

The rooms themselves were quite spacious, well adapted for the decorous entertainment and dancing then in fashion. Service areas, too, were ample; the typical Baltimore back buildings contained kitchen, laundry, bath, toilet, and additional sleeping quarters, easily reached by a separate staircase and the customary outside balconies. In sum, the interiors corresponded remarkably with the exteriors. Large proportions and ample spaces, the resort to expediencies, the retreat from Latrobean subtlety to bour-

geois directness and simplicity, all these features of Small's style accompany the contemporary transition of political dominance from the internationally oriented merchant class to the mechanics, as a group more limited culturally and inclined toward practical self-interests.[33]

Small's career was climaxed by two large mansions, the Archbishop's Residence (1829) on North Charles Street (fig. 10), and Folly Quarter (1831–1832) in Ellicott City (figs. 11–14).[34] The first was commissioned by Archbishop Ambrose Marechal and the second by Charles Carroll for his daughter and her husband, John McTavish. Both were designed as complex groups, a large central block flanked by smaller ones. Since each unit was a discrete, self-sufficient block, the complex could be constructed at once, as in the case of the Archbishop's Residence, or in stages, like Folly Quarter where the lateral units, however, have never been added. The smooth-faced granite walls of the latter, the joints scarcely visible, have little more sense of heavy masonry than the stuccoed brick of the Residence. Recesses and the projecting central section of Folly Quarter are so slight as to emphasize rather the diaphragmatic

33. Small's attitude toward practicality and economy is evident from his plans for the J. I. Cohen House. The side walls were made extremely thin because the house was inserted between two existing structures with heavy walls. The two flanking houses (built 1816–1818) still stand; No. 413 for Philip Wallis has undergone two, perhaps three, major alterations. No. 417 for James Sloane and recently occupied by the Girls' Friendly Society has fared better. Two-and-a-half stories have been added on top, and the main-floor windows have been lengthened, but the fine brickwork and the handsome entrance and stairway are virtually unmolested.

34. Archbishop's Residence: Griffith, *Annals*, pp. 279–280; Howland and Spencer, *Baltimore*, p. 61. Folly Quarter: J. D. Warfield, *The Founders of Anne Arundel and Howard Counties, Maryland* (Baltimore, 1905), pp. 509–517; [Wilbur H. Hunter, Jr.], *The Society of Architectural Historians. August Tour, 1959* (Baltimore [1959]), pp. 12–13. I am much indebted to Rev. Conrad Miller for his guidance through Folly Quarter.

Fig. 10. Archbishop's Residence, by Wm. Small, 1829 (courtesy HABS).

Fig. 11. Elevation, Folly Quarter, by Wm. Small, 1831 (courtesy Maryland Historical Society).

Fig. 12. Plan, Folly Quarter, by Wm. Small, 1831 (courtesy Maryland Historical Society).
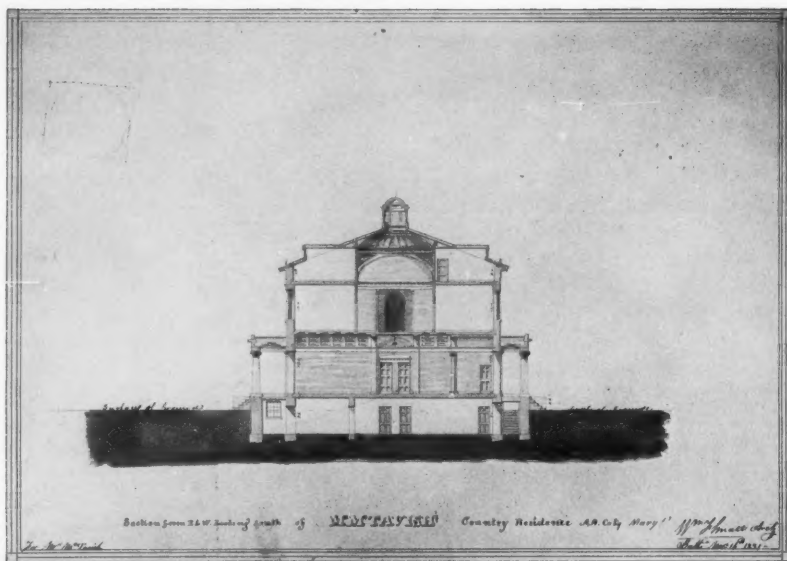
Fig. 13. Section, Folly Quarter, by Wm. Small, 1831 (courtesy Maryland Historical Society).

Fig. 14. Folly Quarter, Ellicott City, Md., by Wm. Small, 1831–1832
(photo: author).

nature of the wall planes. Windows, too, virtually unframed, seem but openings in a membrane. Sharp corners heighten the geometricity of the block as much as the simple friezes and the deep cornices at the eaves.

Although the three units of the Residence are connected, the individuality of the blocks contrasts with the interpenetration in the adjacent Cathedral by Latrobe, where projections, deeper reveals, and smooth rectangular panels exaggerate the masonry fabric. The large central block of the Residence, almost square in plan, has three full stories above a high basement and presents three bays toward North Charles Street; the lateral ones, two stories

and a basement, have narrow, one-bay fronts.[35] Surface rhythms, based on groups of three elements, are partially concealed by Victorian oriels. A tripartite window survives in the third story and probably existed in the three blind recesses where the bay windows have been installed. Instead of pilasters or columns, the doorway is framed by

35. The small block at the north end may have been in the original scheme, but there never was space for a counterpart at the south. It agrees in style and construction with the central units. Although the three-part central structure has recently been resurfaced, the small building retains its ashlar-ruled stucco covering the brick.

simple flat strips carrying blocks with four leaves rather than a rosette, a composition which further emphasizes the wall plane.

Folly Quarter received a richer treatment, although there was some simplification in the execution. In the drawings, the grouping and differentiation of the parts are perfectly clear. Almost square, actually sixty-six by fifty-five feet, the central block matches the projection of the wings by its weighty porticoes marked by four stocky Tuscan piers similar to those employed on Small's school buildings. Widely spaced in the center, these piers create the triple opening repeated in the large window above and in two variants of the Palladian window at the sides. Vertical and horizontal stone dividers in these windows are even simpler than the door frame of the Residence, and occasional recessed panels below the openings are reminiscent of Latrobe's design for the Bank of the United States in Philadelphia. Arched recesses are deployed over the three units, and a novel element, a truncated triangular lintel or pediment, crowns the second-story windows on all four sides of the main building. Like the simplified window and door frames, the triangular lintel had its source in the work of Latrobe who employed this form in his Bank in New Orleans.[36] Despite some more massive elements a number of others, both old and new, stress the nature of the wall as an enclosing membrane, turning sharply at the corners and cut as sharply for the openings. Overhead the modillioned cornices and deep-eaved gable roofs retain the character of enclosing planes as the hipped roof with its implications of bulk could not.

A number of alterations were made during construction, probably with Small's approval, since the building was completed in 1832. That only the main block was scheduled for immediate construction was apparent from the beginning, for only this part of the large plan was blocked in. Some of the changes arose from the use of hard granite. Windows, both the rectangular ones and the Palladian type, were simplified, and the glazing was brought forward to the wall surface. The loss of the shallow arched recesses was compensated for by a row of rectangular recesses between the two stories. Both porticoes received columns instead of piers, thus presenting a more massive appearance. Although some slight alterations are indicated in the plan, the most significant one is not; the hall was reversed by a change in the placement of the vestibule and columns. Instead of the groin vault and dome indicated for the main hall, it received a depressed barrel vault and in the center a flat ceiling.

In plan these two mansions are quite similar. Generous proportions make the twenty-foot hall of the McTavish House fully as wide as the rooms on either side, so that the present owners, Franciscan Fathers, use the hall as a chapter house. In the Archbishop's Residence the main hall is only slightly less wide. Both have a narrow vestibule inside the door and a minor hall perpendicular to the main one. In the Residence all rooms are simple rectangles, some nearly square, the only variation being the large alcove at the back of the dining room in the north wing. Octagonal shapes may, however, have been intended, as they were for two rooms in Folly Quarter. The plan of the latter indicates that they were eliminated before construction. The planning of two wings at Folly Quarter, each with one large room, follows what had actually been built at the Residence. In many ways, in motifs as well as general spatial relations, these two buildings share the qualities remarked in the Cohen houses. All four have the identical group of two large rooms connected by a tall, wide opening with folding doors; all have fireplaces against the inner wall and usually one of the rooms was planned with an octagonal end. This pair of connected rooms was to become a prominent feature of the Victorian house.

Both mansions have preserved the simplicity of Small's interior decoration. In general there are no complex moldings on walls or ceilings and only occasionally a cornice. In contrast with rich stucco work of the Federal period, for example the main hall of Homewood (1801–1803), the ceilings are usually plain.[37] Only an occasional room at the Residence boasts a series of concentric half-rounds at its center. Circular motifs predominate in plaster, metal, stone, and wood; door and window frames have corner blocks decorated only by two concentric circles. Pairs of columns or pilasters mark the entrance vestibule and the side hall, as they did also for the Cohen houses. Folly Quarter is certainly exceptional in the barrel vault of its main hall and the extraordinary Latrobean domed saloon on the second floor. In these elements, moreover, the large, unworked, strongly marked coffers and flutes have a directness and even a heaviness when compared with the subtlety and niceness of Latrobe's works. Occupying the whole south wing of the Residence, the Chancery received an architectural accent equal to the importance of an archbishop. Its four walls are lined by Corinthian pilasters carrying a full, archaeologically correct entablature.

The original lighting fixtures which have survived, such as sconces and wall and ceiling lamps, have a classic simplicity of line in comparison with similar objects of earlier and later periods. Of silver or brass, they are composed largely of gracefully entwined metal tubes emerging from circular plates; there is no striving for the richness of Federal and Georgian or the floridity of Victorian chandeliers. The mantelpieces of Folly Quarter disappeared and were replaced a few decades ago by Federal examples of too-delicate proportions and over-rich carvings of Bacchic and other scenes. At the Residence, however, the

36. Hamlin, *Latrobe*, pp. 526–527, pl. 36.

37. Howland and Spencer, *Baltimore*, pp. 11–13, pls. 10–14.
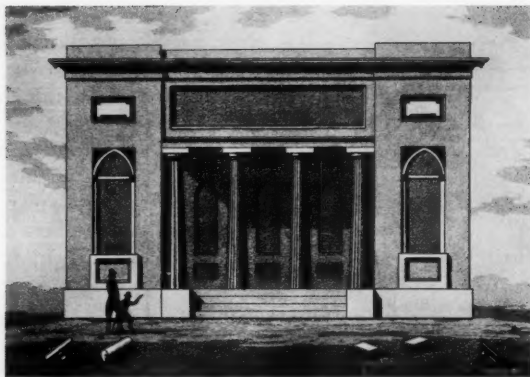
Fig. 15. Design for Masonic Hall, by M. Godefroy, ca. 1812. Engraved by Wm. Strickland, ca. 1817 (courtesy Peale Museum).

Fig. 16. Masonic Hall, by M. Godefroy and Wm. Small, ca. 1812–1814, 1819–1822 (courtesy Peale Museum).

original black marble mantels are still in place. Their stark simplicity and generous proportions—none has more than a squat Doric or Tuscan column on either side of the opening—accord perfectly with the architecture. It is unfortunate that the Victorian decoration of rich, intense wall colors and draperies conceals their appropriateness. Yet the mantelpieces and lighting fixtures, like the segmental arch and the truncated triangular pediment repeated from the exterior, the broad proportions of interior volumes, and the simple modeling of exterior surfaces are parts of a meticulous organization which endows the whole with a remarkable stylistic consistency.

On 11 July 1831 Charles Carroll laid the cornerstone for St. Charles' College, located about a mile from his own house (Doughregan Manor) outside of Ellicott City.[38] Construction of Small's design was postponed, and it is impossible to determine whether it was actually followed in the building completed in 1848. Fire about 1870, consecutive enlargements of 1859, 1870, and 1876, and final destruction by fire in 1911 have all left an imposing ruin over two stories high. Small's drawings for this final Carroll commission have disappeared, probably destroyed in one of the fires.

Small accepted several of the mundane jobs required by a growing city. In 1827–1829 he added a wing to the state penitentiary.[39] Four tiers of cells flanking a central corridor provided the solitary confinement at night desired by contemporary penologists. The corridor and all cells were

vaulted, probably with groins, a technique in which Baltimore's bricklayers were highly proficient. The Mt. Clare Station (1830) of the Baltimore and Ohio Railroad may have been designed by Small, or equally by William Howard or young Benjamin H. Latrobe, who were the engineers for that railroad.[40] Tripartite windows are spotted above and to either side of the door, a pattern characteristic of Small. The brick wall is like a skin stretched over a framework, the corners making sharp breaks, and the wall carries a deep cornice at the eaves. Small served as engineer for another line, the Baltimore and Susquehanna, chartered in February 1828 to move north toward York, Pennsylvania.[41] Construction was delayed and the extent of his work is uncertain, but the directory of 1829 notes him as 'civil engineer' as well as 'architect'. Following a public meeting in December 1823 there was much agitation for canals from Baltimore to the Susquehanna and the Ohio Rivers to channel Midwestern trade through the city. Small's connection with these works is suggested by his repeated borrowings from 1822 to 1827 of recent English and American books on canals. As a result of making preliminary surveys for the canal to the Susquehanna, Small possessed a great familiarity with the terrain, and for this reason was selected to lay out the line of the railroad.

38. *Baltimore Gazette*, 14 July 1831; G. E. Viger, 'St. Charles' College (1830–1894)', in B. C. Steiner (ed.), *History of Education in Maryland* (Washington, 1894), pp. 166–169.

39. *Laws of Maryland*. 1827, chap. 37; Griffith, *Annals*, p. 267; [Latrobe], *Picture*, p. 87; see M.H.S., Small to the State of Maryland, Baltimore, January 1831, for Small's bill of $1,875 for designing and constructing this building during the period March 1827 to March 1829.

40. Howland and Spencer, *Baltimore*, p. 89, pl. 68; Carroll L. V. Meeks, *The Railroad Station* (New Haven, 1956), pp. 26–27, fig. 2.

41. *Laws of Maryland*. 1827, chap. 72; General J. G. Swift, *Report on the Baltimore and Susquehanna Rail Road*, and *Annual Report of the President and Directors* (Baltimore, 1828), pp. 4–5; Griffith, *Annals*, pp. 243–244; J. Thomas Scharf, *The Chronicles of Baltimore* (Baltimore, 1874), pp. 429–432. This line became part of the Northern Central Railway, and still later was absorbed into the Pennsylvania. Between 1822 and 1827 Small borrowed books on canals and waterworks by R. Fulton, John Smeaton, William Strickland, and others.

Two attributions to Small can be well justified, one for a building at the beginning of his career, the other near the end. The first was the Masonic Hall which had been started according to a design presented by Godefroy about 1812 (figs. 15, 16).[42] After the cornerstone ceremony of 16 May 1814, construction proceeded only as far as the foundations. In 1819 Jacob Small pointed out to Charles Wirgman, the Grand Master, that he as carpenter and William Stuart as stone mason had several thousand dollars worth of material on the site all cut and prepared for assembly, and that it had suffered from small boys and the weather.[43] Work soon recommenced, and an agreement to house the District and Circuit Courts in the building led to a doubling of its height and length. In Godefroy's design the two-story building had been masked by a high one-story front, in the center of which four free-standing columns supported a large rectangular panel forming an attic. In America the colonnade screen before a vestibule was a new motif found only in works by Latrobe, Mills, Godefroy, and others closely associated with these men. The insistence on four free-standing columns was particularly French in origin, and Godefroy was to use this motif again on his Unitarian Church.

Around 1819 work recommenced with a new design. The façade became two-storied, divided by a heavy entablature running across the piers and supported in the center by two columns in antis. Above the entablature the façade was opened by a huge arch, creating a form even more French, one common in the work of revolutionary architects like Ledoux, but also used by Latrobe inside the Baltimore Exchange. Each pier received an additional arched recess on the upper level. All the arches were rounded, the niches were treated like the windows of the Exchange to become elements of the 'aqueduct' motif, and the number of rectangular panels was increased. The stylistic dependence on the Exchange, the date, and the fact that Jacob Small was the master builder all suggest his son William as the author of the new design. Another

42. Griffith, *Annals*, p. 209; Baltimore Equitable Society, *Surveys*, book G, p. 145, policy no. 7575, at $30,000, 1 May 1823. Edward T. Schultz, *History of Freemasonry in Maryland*, 2 vols. (Baltimore, 1884–1888), II, 157, 184, 191–210, 306, 348–349; Rich Bornemann, 'Some Ledoux-Inspired Buildings in America', *Journal of the Society of Architectural Historians* XIII–1 (1954), 17, fig. 5. Godefroy's original design was published as an engraving by William Strickland in Samuel Cole (ed.), *The Freemasons' Library and General Ahiman Rezon* (Baltimore, 1817). Jacob Small was credited with this design: *Federal Gazette*, 16, 19 May 1814; *Baltimore American*, 17, 19 May 1814; Thomas Poppleton, *Map of Baltimore* (Baltimore, 1823). A Roman Catholic, Godefroy could hardly have been honored by the Masons, while their eminent and respected member, Small, could enjoy the honor as sufficient recompense for superintending the construction. No other building is attributed to Jacob Small in his whole, long life. It is inconceivable that he produced the sophisticated Masonic Hall design.

43. M.H.S., Small to C. Wirgman, Baltimore, 5 May 1819.

R.C.Long Arch.t

Fig. 17. Peale Museum, by R. Cary Long, Sr., 1813–1814 (from Poppleton, *Map of Baltimore*).

mark of his hand appeared in the extension of the sides of the structure which were only two stories high, as opposed to the three-story front half. The back held the two large courtrooms, and on the exterior their windows were grouped in four tall arched recesses, a device Small used frequently. Little is known specifically of the plan and interior, but all accounts agree that both judicial and Masonic needs were met satisfactorily and in a setting of elegance and taste.

In April 1830 when Rembrandt Peale's museum building (1813–1814) had been acquired for a city hall, Small faced a similar but more difficult problem, that of renovating and converting an existing structure (figs. 17, 18).[44] Fortunately the large exhibition rooms lent themselves to municipal requirements for spacious chambers, but the building itself required strengthening, complete redecoration, and a new heating system. The front, too, was altered with elements Small customarily employed around 1830. The original designer, Robert Cary Long, Sr., had monumentalized the five-bay domestic front by his treatment of the central portion. The renovator of 1830 covered the brick with stucco, thus suppressing four chains of imitation quoins on the main story. The distyle-in-antis en-

44. [Wilbur H. Hunter, Jr.], *The Story of America's Oldest Museum Building* (Baltimore, 1952); Howland and Spencer, *Baltimore*, pp. 56–57, illus. p. 38.

Fig. 18. Peale Museum altered for City Hall, by Wm. Small, 1830 (courtesy HABS).

trance was replaced by a pseudoportico with four stocky Tuscan pilasters carrying the entablature and low, truncated triangular pediment, elements used in the public schools and the Folly Quarter drawings. On the second story he substituted three shallow, arched recesses for the openings flanked by four pairs of columns. As a result the large voids of the vestibule and the gallery were eliminated. The massive frame of the third-story panel was also suppressed, while a simple frieze and deep cornice completed the top of the wall. Thus, the façade was reduced to the thin fabric Small sought on such a work as the Archbishop's Residence. Added to the stylistic relations, one more bit of evidence supports an attribution to William Small: his father was still mayor of the city.

These two contrasting works attributable to Small can serve as a summation of his stylistic history. At the beginning of his career he was most strongly influenced by the style of Latrobe's Exchange to which Godefroy had made important contributions. Thus, instead of the relatively provincial manner he might have acquired through apprenticeship to his father, a carpenter-builder, or to a bricklayer and designer like James Mosher, he began in the cosmopolitan manner which had flourished in Baltimore during the first two decades of the century under the patronage of the merchants and wealthy landowners. The virtuoso performances of his mid-twenties in two

large public structures were perhaps overexuberant in the spreading of Latrobean motifs, yet he learned through these exercises the importance of scale and restraint and discovered a method of design.

In works of his early thirties the method became a series of formulas; Durand's term *mécanisme de la composition* readily suggests a parallel to the preoccupation of the early industrial age with mechanical innovations. The façade and exterior walls, like the paper on his drawing board, were treated as surfaces on which he laid out a pattern composed of a few selected motifs. Stucco, a material he used frequently, for example in the Archbishop's Residence and the City Hall, possessed some of the properties of a casting in iron, a similar plastic, albeit coarse, medium then becoming available for locomotives and other large machinery.[45] In planning also the motifs were few and the formulas easily adapted to either large or modest dwellings. Breadth was the prime quality of the commodious chambers simplified by the elimination of niches and recesses which were difficult and expensive to construct; ostentation was limited to the octagonal end and, of course, to the furnishings. Halls changed from passageways to chambers in themselves, a development climaxed at Folly Quarter where the second-floor hall became a square chamber elaborated by a domical ceiling and called the 'saloon', a center of private life akin to the family parlor of Victorian times.

The style developed by Small was not simply a personal expression; it embodied the position and aims of his social class. Not the style of the common laborer, it was for the trained and skilled man who possessed or aspired to middle-class respectability. Early in the nineteenth century this class gained political power. Jacob Small, 'carpenter', became mayor of the city in 1826; he was succeeded in 1831 by William Stuart who, although prominent and wealthy, retained the title 'stone cutter' to the end of his life. If this class adopted the architectural style of the preceding aristocracy as its status symbol, it also accepted the responsibilities of its predecessors. Modern penological institutions, a system of public schools for children, asylums and hospitals, and similar establishments appeared not only in Baltimore but throughout the country. William Small joined with men like Stuart, Cary Long, Sr., and John H. B. Latrobe in the formation of the Maryland Institute for the Promotion of the Mechanic Arts, to provide a broadened intellectual and moral outlook for members of this class. The qualities of his person-

45. Around 1830 several inventions vastly increased the production of iron, and with great quantities available large castings multiplied: H. R. Schubert, 'Extraction and Production of Metals: Iron and Steel', in Charles Singer (ed.), *A History of Technology. Vol. IV. The Industrial Revolution* (New York and London, 1958), pp. 109-113.

al style paralleled the virtues eternally upheld by the middle class—directness, honesty, economy, practicality, and sobriety.[46]

46. The style did not long survive the architect, but a few examples of it are known. A double house at 1734–1736 Orleans Street was destroyed when that street was widened a few years ago. It closely resembled the taller quadruple row house at 405–411 Park Avenue. Suffering few alterations, this stucco front retains a number of Small's devices, blind recesses, segmental as well as semicircular arches, corner blocks on door and window frames. It was certainly not his work; window frames overlapping the wall surface, the heavy entablature and cornice, and the setting of fireplaces against the outer walls militate against such an attribution, and the structure probably dates from the decade following his death. Stucco facing may be found on a large number of buildings from these years and Small's motifs became common property, for example, at 112 West Mulberry Street, and 410–414 Park Avenue. The Odd Fellows Hall on Gay Street built during his lifetime is close enough to be considered for attribution to Small: [Latrobe], *Picture*, illus. opp. p. 162.

John H. B. Latrobe offers the best testimony of both the recognition and the appropriateness of Small's style. For his guide to Baltimore, published in 1832 within months of Small's death, Latrobe hastily wrote several appreciations of his late friend's work. He recognized the modernity of Small's taste and designs as well as the planning for effective use.[47] In his simple line engravings he captured the essence of Small's buildings, the flat and relatively unworked walls forming the shell of a structure, and the rather stubby proportions where orders were employed. In plates of other buildings, moreover, he succeeded in reducing them to the same expression, a striking example not only of the pervasiveness of the taste, but also of the function of the style as a symbol of the era.

47. An especially good example occurs in Latrobe's discussion of Male School No. 1 (pp. 217–218), where a comment written after Small's death repeats a previously written statement.

The Problem of the Iconography
of Late Antique and Early Mediaeval Palaces*

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The term iconography, as used in this paper, is to be understood in the same sense in which Krautheimer first used it and which has already reached a certain amount of general acceptance. It was borrowed from the figurative arts, where iconography deals with the meaning of the work of art, as opposed to form which deals with the style or the artistic volition (*Kunstwollen*) expressed in the work of art. We can deal with a building in analogous terms: in addition to the formal articulation there is the purpose behind the form which determines the appearance of the building. For example, a church might be built as a palace church, a parish church, or a baptismal church; a palace might be built as an imperial palace, a baronial palace, a city palace, or a country chateau. However, we have at the same time to be aware of the fact that this program does not immediately determine the form, and that between the program and the final form the factor of artistic types and motifs enters. For example, a painting of the Crucifixion might be represented by varying types: a three-figured Crucifixion with only the Virgin and St. John under the cross, or a many-figured composition. These solutions are independent of the style and purpose and may occur concurrently.

In architecture we find an analogous situation: a parish church can be built with a nave only or with two side aisles as well. On the other hand, the same type can be used for varying purposes: a round church can be used either as a burial church or as a baptismal church, as exemplified by the church of Santa Costanza in Rome. Furthermore, specific meanings become associated with these types which maintain a tradition of their own and, although related to the purpose, remain quite different from it. Here we arrive at the more profound aspects of a study of the iconography of a building. As an example, a church may be built in the shape of a cross because of the Christian connotations of the cross; thus the type of the building establishes the meaning. The cross may then be

further varied, becoming either a *crux commissa* (T-shaped cross) or a *crux immissa* (Latin cross). Such variations in the church plan need not be immediately dependent on the practical purposes of the building, for here we are dealing with secondary motifs which serve primarily to establish meanings beyond these practical purposes.

In late antique and early mediaeval buildings which have come down to us (as also in those of other periods), these motifs are the only immediately given factors; the function is often but generally known, if it is known at all. We are even much less informed about the meaning of the types. The reason for the choice of a particular type often remains an open question. At times the question arises as to whether a certain building type is determined by its function, by a ceremony, or by a particular meaning, or to what extent each of these factors is involved. This is often not determinable, as for instance in the T-shaped basilica.

Recently these problems of the meaning of architecture have begun to be of greater interest. The investigations of the Roman basilica by Krautheimer are concerned with this problem,[1] as is the excellent book by Bandmann, *Mittelalterliche Architektur als Bedeutungsträger*, as well as the late E. Baldwin Smith's *The Dome*. Smith's latest work, *Architectural Symbolism of Imperial Rome and the Middle Ages*, is particularly important for this topic; it instigated the remarks on palace architecture made in this paper.

It is possible to investigate only a few particular types and motifs within the framework of this article. It must be understood that until investigation of the existing palace types has advanced much further, we can reach no final conclusion concerning their meanings. Sometimes the motifs are secondary and serve no apparent practical purpose, and might as well be disregarded in so far as function is concerned. In these cases it is probable that there is a significant meaning.

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1. Richard Krautheimer, 'The Carolingian Revival of Early Christian Architecture', *Art Bulletin* XXIV (1942), 1 ff.
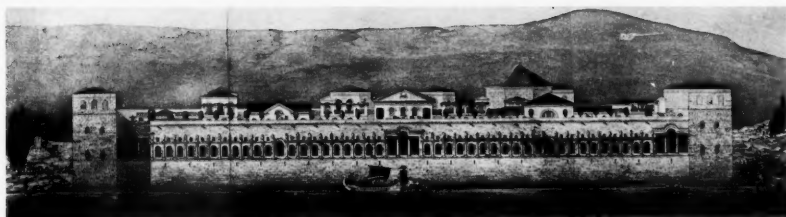
Fig. 1. Reconstructed view, Palace of Diocletian, Spalato (from E. Hébrard and J. Zeiller, *Spalato, le palais de Dioclétien*, Paris, 1912).

An example of this can perhaps be found in the two-towered palace façade with a gallery, often in the upper part, placed between the two towers. In a former work I have defined this type as the 'portico-villa with massive corner blocks'.[2] It becomes common in the second century A.D., during the Imperial Roman period, and is in use through and beyond late antiquity. The façade fronting the sea of the Palace of Diocletian at Spalato, about 300 A.D., is an example of this type (fig. 1). A rather singular Merovingian specimen was excavated within the area of the Fulda monastery,[3] and the same motif can also be seen in representations of late antique palaces and villas, as for instance in a mosaic at Carthage (fig. 2).

What is the origin and the meaning of this motif? Its origin lies in the ancient Orient, in city gates flanked by towers. This city gate motif, with an elevated gallery between towers, lives on as a symbol of sovereignty in Greek and Roman coinage, for instance in the coins of the city of Anchialos in Thrace.[4] It is necessary, however, to be cautious; we are dealing with a significant motif which was used without restriction. For example, as early as the second century anyone who could afford to build a palace or even a country villa could apply it. Thus it is a significant motif which rapidly deteriorates in its application. This motif is occasionally found even long before the Greek era, in the North Syrian dynasties of the late Hittite civilization at the beginning of the first millennium, for example in the so-called Bit Hilani of Sinjerli.[5] In Greek architecture this portico motif between corner blocks is already used in the early building phase of the dynastic castle of Larisa on the Hermos (about 500 B.C.), where it
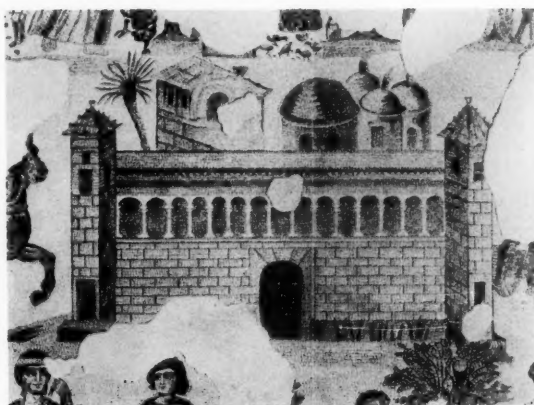

Fig. 2. Roman mosaic, Bardo Museum, Carthage (from Smith, *Architectural Symbolism*).

Fig. 3. Reconstruction of the Old Palace, Larisa I (from F. Krischen, *Jahrb. d. d. arch. Inst.*, 1943).

is articulated with Greek archaic architectural details (figs. 3, 4).[6] As this is the period of the Persian Wars, it is possible that the Greeks were familiar with and influ-

2. K. M. Swoboda, *Römische und romanische Paläste* (Vienna, 1919). See also K. M. Swoboda, 'Palazzi antichi e medioevali', *Bolletino del centro di studi per la storia dell' architettura* XI (1957), 3 ff.

3. See H. Hahn, 'Ausgrabungen am Fuldaer Domplatz im Jahre 1953', *St. Bonifatius Gedenkgabe zum 1200. Geburtstag* (Fulda, 1954), pp. 641 ff.

4. E. Baldwin Smith, *Architectural Symbolism of Imperial Rome and the Middle Ages* (Princeton, 1956), pp. 37 ff.

5. See K. M. Swoboda, *Kunstgeschichtliche Anzeigen* I (Graz, Vienna, Cologne, 1955), 55 f.

6. See Johann Boehlau and Karl Schefold, *Larisa am Hermos* (Berlin, 1940), I, 30 ff.
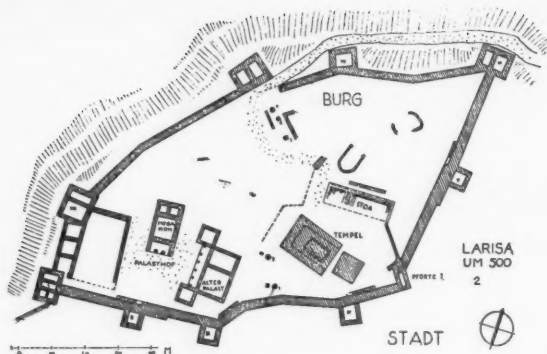
Fig. 4. Larisa I, about 500 B.C. (from F. Krischen, *Jahrb. d. d. arch. Inst.*, 1943).
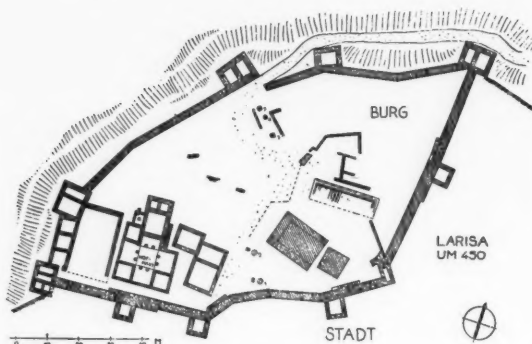

Fig. 5. Larisa II, about 450 B.C. (from F. Krischen, *Jahrb. d. d. arch. Inst.*, 1943).

Fig. 6. Plan of treasury, Persepolis (from Schmidt, *Persepolis*).

enced by the similar façades of contemporary Achaemenid royal halls, the *apadanas*. At this same time a megaron of the old archaic type with a façade in antis stood beside the portico façade at Larisa.

Around 450 B.C. the buildings of Larisa on the Hermos were rebuilt. The portico façade of the palace was demolished and the megaron was expanded by quadrupling its forehall, reproducing it on each of the four sides of a square court (fig. 5). In this way a peculiar sort of peristyle court was produced, which was characterized primarily by its massive, closed corners. This, then, is the earliest existing Greek monumental peristyle court known. The peristyle court of the classical Greek period is, at present, known only through written sources. The peristyle building may be traced to much earlier times than the Greek period, however: it is known in ancient Egypt, for example, in the pilaster peristyle of the burial temple at the pyramid of Cheops from the Old Kingdom. The
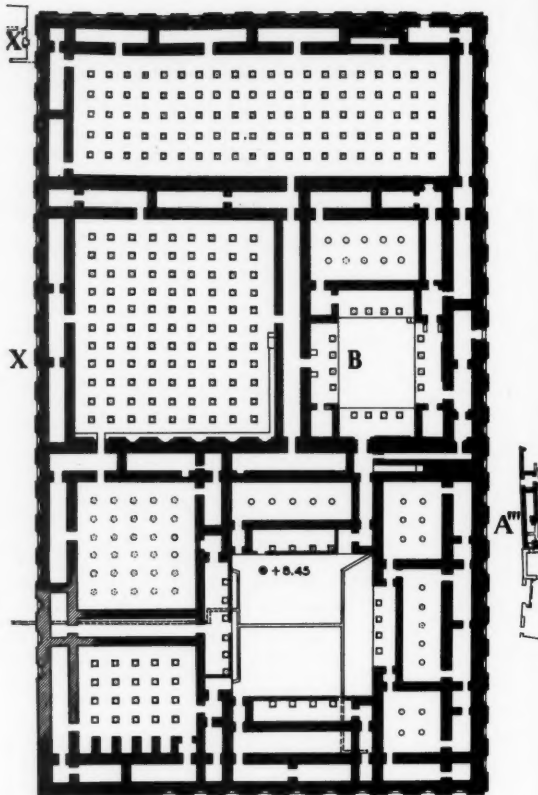
singular corner solution in Larisa, where the building is arranged as if four portico façades with massive corner blocks were placed around a square, indicates its historical derivation from Achaemenid palace architecture.

The treasury and those parts of the palace at Persepolis which belong to the period of Darius and Xerxes when the latter,[7] still crown prince, already took part in the government, show an analogous construction of the court (fig. 6). Here the corner solution is similar: the portico is not continuous but is interrupted by walled-in corner rooms. Four columns are placed on each of the four sides between these corner rooms. A neighboring court does not have the same number of columns on each side: three sides have four columns each; the fourth, however, is differentiated by having six columns. Here, too, each side is flanked by massive corner blocks, thus giving the impression of separated vestibules.

Assumptions concerning the purpose and meaning of this type could be made on the basis of the reliefs found in the first of the two courts. They are monumental reliefs

7. Erich F. Schmidt, *Persepolis* (Chicago, 1953), I, 156 ff.

Fig. 7. Palace of Diocletian, Spalato (from R. Adam, *Ruins of the Palace of the Emperor Diocletian at Spalato*).

showing King Darius surrounded by his dignitaries and accompanied by the crown prince, his son Xerxes, thus allowing a dating around 485 B.C. Above the king is a canopy of which only the poles are still visible. Two incense vessels stand near the throne. The scene is obviously that of a reception. Exactly the same scene is again represented in mirror image in the vestibule on the adjacent side of the court. This emphasizes the meaning (not the purpose and use) of the court. As a matter of fact, all monumental reception and procession reliefs in Persepolis are analogously reproduced a second time in mirror image. The reason is not yet clear.

Let us return to the Palace of Diocletian at Spalato (fig. 7).[8] It too has a peristyle, but in an older sense of the word; we must distinguish in this case between older non-scientific terms of popular usage and the modern terms used in the history of art. For instance, the term 'basilica' originally had much broader connotations, not necessarily related to a specific type of building. The peristyle at Spalato, which is not a peristyle in the strictest sense, is

part of a group of three units (fig. 8). It leads to a rotunda which is followed by a long monumental rectangular hall, whose thick walls indicate that it was barrel vaulted. The domed rotunda has niches similar to those found in octagonal mausoleums. Its central position in the royal palace indicates that it was undoubtedly a throne room, as in the later Sassanian palace complexes. Similarly the roundness of the dome probably symbolized even this early the world rule of the sovereign who was enthroned beneath it. E. B. Smith in his book *The Dome*, as well as Hautecoeur[9] and L'Orange,[10] have already discussed this theme. Adjoining this dome on one side is the long, barrel-vaulted hall; on the other side is the peristyle from which one enters the domed hall through an anteroom. The purpose and meaning of these individual units are not yet fully understood.

In regard to the so-called peristyle: on the end which leads to the anteroom of the rotunda three intercolumniations form a 'Palladian' motif in which the center intercolumniation is accented by a high arcade. Dyggve discusses this peristyle court in detail, believing it to be a

8. For the most recent literature on the palace of Diocletian see J. Marasović, 'Doprinos Urbanistićkog biroa proućavanju i zasiti graditeljskog naslijedja u Dalmaciji', *Urbs* II (1957), 51 ff.; see also the review of M. Miletić, *Palladio* VIII (1958), 189 ff.

9. Louis Hautecoeur, *Mystique et architecture, symbolisme du cercle et de la coupole* (Paris, 1954).

10. Hans Peter L'Orange, *Studies on the Iconography of Cosmic Kingship in the Ancient World* (Oslo, 1953).
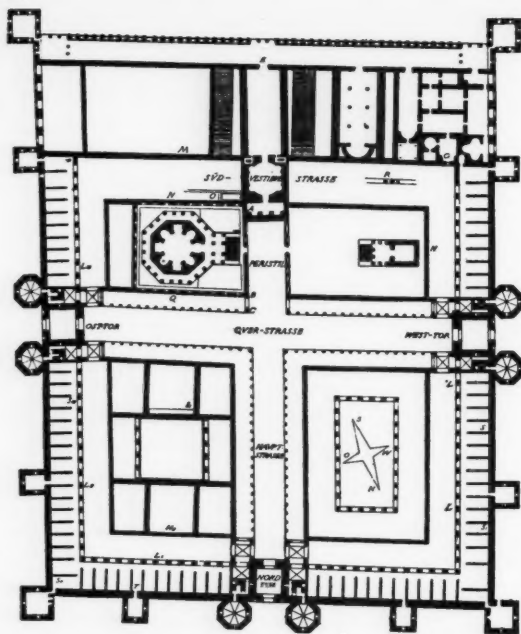
Fig. 8. Plan, Palace of Diocletian, Spalato (from G. Niemann, *Der Palast Diocletians in Spalato*).
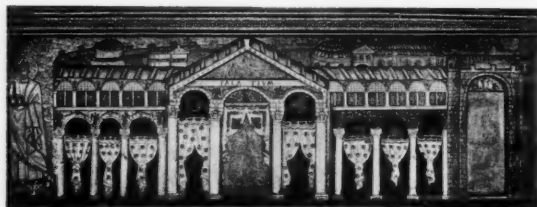

Fig. 9. Mosaic, Church of Sant' Apollinare Nuovo, Ravenna (from Creswell, *Early Muslim Architecture*).

prototype for a Christian *basilica discoperta*.[11] The problem of the *basilica discoperta* raised by Dyggve is still very much debated; he is, however, correct in so far as identifying it as a court area which must have played a role in the cult of the ruler.

Dyggve also deals with the representation of the palace of Theodoric in the mosaic at Sant' Apollinare Nuovo in Ravenna (fig. 9), and assumes that this picture reproduces a structure analogous to that of the peristyle of Spalato. However, in the mosaic the flanking parts of the peristyle

11. E. Dyggve, 'Ravennatum Palatium Sacrum', *Det Kgl. Danske Videnskabem Selskab, Archaeologisk-Kunsthistoriske Meddelelser* III, 2 (1941).

are flattened into a two-dimensional design. The gabled center piece here, too, has three intercolumniations: the king was probably depicted in the center; at his sides were his dignitaries. These figures were removed after the reestablishment of the Catholic rites following the Byzantine conquest; nevertheless, small remnants can still be seen. The same motif, in this two-dimensional form, was in continuous use as the image and emblem of the ruler's palace, God's palace, and the heavenly palace.

We find a variation of the same motif in a Coptic fresco of the seventh to eighth centuries in El Bagawat in Egypt (fig. 10), which shows the entry of Moses into the Promised Land.[12] Here the motif is perhaps meant to represent the Promised Land, and as such, the Heavenly City of Jerusalem according to the Old and New Testaments. One large portal replaces the tripartite division in the center; the flanks are two-storied with a row of arcades below and a gallery of columns with architraves above. There are indications here which contradict the idea that the flanking sections are conceived of as being folded back. Stairways are located on each side and the whole complex is situated on a hill. These facts would seem to indicate that Dyggve's theory concerning the representation of the palace of Theodoric in Sant' Apollinare Nuovo is not correct.

A further variation on the motif, again representing the Heavenly City, is found in the illustration to Psalm 133 in the ninth-century Utrecht Psalter.[13] Here the wings are only one-storied and somewhat diagonally placed, and the center piece is a sort of baldachin. As was the custom throughout the middle ages, a simultaneous representation of the interior and exterior is attempted. Stairways similar to those of El Bagawat are also found here.

A scene in the Carolingian Bible of Charles the Bald in San Paolo fuori le Mura in Rome, an illustration of the Judgment of Solomon, leads even further away from the original form. Solomon is shown as an emperor on the throne surrounded by his courtiers.[14] A domed baldachin resting on four supports arches over the throne; the side motif consists of diagonally placed arcades.

Perhaps we can conclude with caution that the side motifs in Ravenna were a part of a late antique palace façade type, regardless of whether or not they are surrounding a court or flanking a portal. The motif of these flanking pieces in itself also shows a development. Such fronts composed solely of rows of arcades one above the other, but without regard for correlating the vertical axes of the several stories, are characteristic of the artistic voli-

12. Ahmed Fakhry, *The Necropolis of El-Bagawat* (Cairo, 1951), pl. IV and fig. 37.
13. E. T. De Wald, *The Illustrations of the Utrecht Psalter* (Princeton, 1932), pl. CXVI.
14. Amadée Boinet, *La miniature carolingienne* (Paris, 1913), pl. CXXV, A.

tion of late antique art of the fifth and sixth centuries A.D. This façade motif, however, can be seen much earlier: it is recognizable about 100 B.C. in a floor mosaic of a room from a building under the level of the Villa of Pompey in Albano (fig. 11).[15] The purely functional motif without columns and with arcades over nonarticulated piers is already foreshadowed here. The battlements which crown the building prove that the representation is not that of an aqueduct.

The earliest reconstructible example of an actually existing palace front of this type is that of the palace of Galeata near Forli, built by Theodoric (fig. 12).[16] The façade was articulated like the flanking tracts depicted in the mosaic of Sant' Apollinare Nuovo in Ravenna, but was flanked by massive corner pieces which perhaps terminated as towers. This reconstruction, however, is not a completely sure one.

The well-known façade of the so-called Tekfur Saray in Istanbul must also be placed among this group in spite of considerable differences. The palace is situated about 600 yards inland from the Golden Horn in an indentation of the Theodosian Wall. The date is uncertain, but ranges between the tenth and fourteenth centuries. The polychrome effect produced by alternating stone and brick inlays leads one to assume that we are dealing here with Oriental influences. This, however, is not necessarily true, because the polychromed and patterned wall technique already existed in Roman architecture; its tradition was not completely broken until the high middle ages.[17] The façade is three-storied. The actual arcades are carried out only in the lowest story, here in alternation with supports and with a pier in the center. In the two upper stories the arcade is replaced by wall arcades into which windows have been cut. The third story is isolated without vertical correlation to the lower stories. The center story is tied to the lowest one by pilaster strips (Lisenen) leading down from the wall arcades on the center axis and on the flanks.

The solution for the façade of the former abbots' house in San Feliu de Cuixols near Gerona in Spain (fig. 13), now part of the parish church, is closer to the Ravennate variation of the type.[18] A terminus post quem for the façade

15. Giuseppe Lugli, 'Albano Latiale, Scavo dell' Albanum Pompei', Notizie degli Scavi 7 (1946), 60 ff.

16. F. Krischen, 'Sitzung am 3. November 1942', Jahrbuch des deutschen Archäologischen Instituts. Archäologischer Anzeiger 58 (1943), 459 ff.; also Giulio Jacopi, Ostgotenzeit (Berlin, 1944), pp. 33 ff.

17. See N. Brunov, 'Zur Frage nach dem Baustil des Palaeologenzeitalters in Konstantinopel', Bulletin d'Institut Archéologique Bulgarique 5 (1928/29), 187 ff.; most recently Nikola Mavrodinov, Vizantijnskata Architektura (Sofia, 1955), pp. 187 ff.; K. M. Swoboda Kunstgeschichtliche Anzeigen IV (Graz, Vienna, Cologne, 1959), 51; also Fasti Archeologiche 7, 1952 (1954), no. 5385.

18. José Pijoán, Summa Artis (Madrid, 1948), VIII, 490; also José Ma. de Arcárate, Monumentos españoles catálogo de los declarados nacionales (Madrid, 1953), I, 441 ff., no. 382.
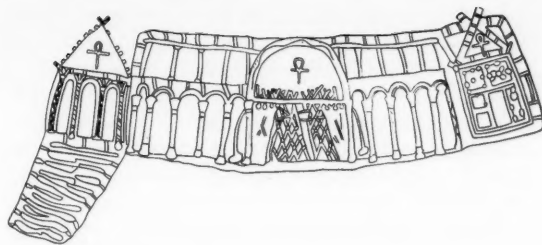
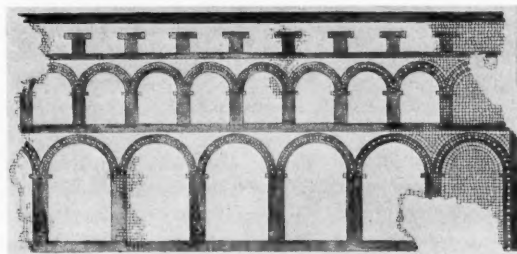Fig. 10. The Promised Land, Coptic necropolis, El Bagawat (from A. Fakhry, The Necropolis of El-Bagawat).

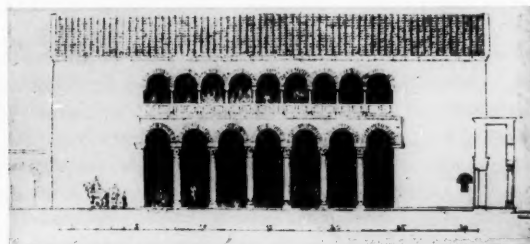Fig. 11. Mosaic from Villa of Pompey, Albano (from G. Lugli, Albano Latiale).

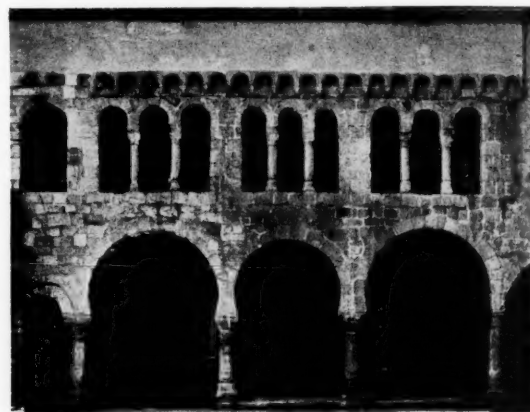Fig. 12. Reconstruction, Palace of Theodoric, Galeata (from F. Krischen, Jahrb. d. d. arch. Inst., 1943).

Fig. 13. Church of San Feliu, Cuixols (from Pijoán, Summa Artis VIII).